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Gender and The Crowd: Differential Effectiveness of Justifications Used by Entrepreneurs in Their Crowdfunding Pitches

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by

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Dissertation

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Doctor of Philosophy

The University of Texas at Austin

May 2019

Dedication

To Gaṇeśa.

Acknowledgments

Some journeys afford us very many remarkable human experiences. Thanking all who made such odysseys happen is quite elusive. Even if our conscience and memory were to serve us well, cultural symbols and language seem awfully inadequate for undertaking such basic human acts as expressing gratitude. It is with this caveat in mind that I attempt to wholeheartedly acknowledge those who made this dissertation possible.

I begin with expressing my most sincere gratitude and appreciation to Luis Martins, Violina Rindova, Ethan Burris, and Steven Gray for all the kind support they provided to me as my dissertation committee members. Without Luis' support in particular, I would neither have ended up in such a prestigious doctoral program, nor have completed it successfully and reached this milestone. In retrospect, I realize I troubled him oftentimes during the program with my idiosyncrasies. At every stage, he showed confidence in my candidature and patiently encouraged me to improve on my several weaker areas. Similarly, Violina went above and beyond what is expected of a mentor. I consider myself extremely lucky to have had the opportunity to be her student while she was at McCombs. Thoroughly engaging discussions with her are the foundation upon which this dissertation rests. She continues to inspire me not only through her passion for research, exciting ideas, and creative thinking, but also through her compassion and kindness. I am very appreciative of her dedication and commitment to support aspiring scholars. I am thankful as well to both Ethan and Steven for their generous encouragement, ideas, and inputs for improvement. Their professional values and approach to mentoring have shaped me in many important ways.

My dissertation framing and empirical analysis have also significantly benefitted at various stages from the inputs of several faculty members, including David Harrison and Shefali Patil at McCombs. To Elizabeth Keating of the Anthropology Department and James Pennebaker of the Psychology Department, I am extremely grateful. It was their passionate teaching that

triggered my interest in language and informed my inquiry leading to this dissertation. There was also one colleague whose help I extensively sought. For his willingness to listen to my ideas at various stages, for initiating me into several text analytic techniques, and for the kindness and generosity of his response, I thank Ryan Boyd, a postdoctoral fellow in the College of Liberal Arts.

To Kiva.org, DonorsChoose.org, and GlobalGiving.org I am deeply indebted; if it were not for their creating an open platform and generously making their data accessible for research purposes, this dissertation would not have been possible. I also sincerely acknowledge the prosociality of millions of investors on these crowdfunding platforms.

I owe thanks to my fellow Ph.D. students– particularly, Niranjan Janardhanan, Andrea Caldwell, and Kinde Wubneh – at McCombs and Sharada Prasad at the University of California, Berkeley. I am grateful for their wonderful friendship, unwavering encouragement, and generous time. I would also like to sincerely thank Reanna Cruz and Sheri Gonzalez at the Management Department for their help and support. With their conscientious work ethic and positive attitude, they made my graduate student life so much easier to navigate.

To Ruchi Sinha at the University of South Australia, I am deeply indebted. It is hard to imagine how my doctoral pursuit would have been possible without her mentorship, encouragement, and support since our first acquaintance at the Indian School to Business. She was very generous in sharing her social capital, and most gracious in her introductions and recommendations. I am thankful to Krishna Tanuku, Dishan Kamdar, and Lindred Greer as well for support of similar kind.

The deepest of my gratitude goes to my wife, Priya, for her extraordinary spirit, her contagious optimism, and her unflagging support. It is her belief in me that kept me on course. I am forever grateful for her love and care despite me taking things for granted on several occasions, and grossly overlooking how my decisions impacted her life and ambitions. Thanks to her for putting up with my several eccentricities and accompanying me on this wonderful adventure. How she manages to do this while navigating her own doctoral program amazes me.

I also consider myself very lucky to have parents who encouraged and supported my academic pursuits even in the face of severe financial hardships. To this day, I wonder how they managed to provide for me all so well. Also, thanks to my sister and my in-laws for being a source of exceptional positive energy in my life. Finally, to my beloved grandfather, P.T. Krishna Iyengar, who passed away recently, I am sincerely grateful. As a freedom fighter, social activist, and compassionate philanthropist, he was a true teacher. He will remain an immense source of strength and inspiration to me.

Abstract

Gender and The Crowd: Differential Effectiveness of Justifications Used by Entrepreneurs in Their Crowdfunding Pitches

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The University of Texas at Austin, 2019

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In this dissertation, I examine gender differences in entrepreneurs' access to financial capital in crowdfunding settings. Using Boltanski and Thévenot's (2006) theory of justification, I conceptualize the varied ways entrepreneurs legitimate and justify their funding requests on crowdfunding platforms. Contextualizing to prosocial crowdfunding - online platforms that connect entrepreneurs seeking financial capital to resource providers who are motivated by the desire to benefit others - I theorize about gender differences in the effectiveness of various types of justifications. More specifically, building on research on prosocial behaviors and literature on gender differences in values, attitudes, behaviors, and information processing, I develop hypotheses about (1) differences in the justifications women and men entrepreneurs use in their crowdfunding pitches; (2) differential effects the use of specific justifications have on raising capital through prosocial crowdfunding avenues for women and men entrepreneurs, and (3) differences in the appeal of justifications to women and men prosocial crowdfunding investors. I test predictions using a dataset of pitches made on a microlending-based prosocial crowdfunding platform. In Study 1 based on a sample of US pitches, I largely find support for the gender effect on entrepreneurs' use of justifications predicted based on gender role theory. Findings suggest that women entrepreneurs are more likely than men entrepreneurs to use inspired and domestic justifications, and less likely than men entrepreneurs to use civic, market, and industrial justifications in their crowdfunding pitches. In Study 2, drawing on a multi-country sample of crowdfunding pitches, I show that entrepreneurs are more likely to succeed in crowdfunding when using justifications that emphasize the emancipatory potential of their undertakings. More specifically, I find that women and men entrepreneurs are more likely to succeed in raising financial capital when they use emancipatory justifications that counteract certain stereotypical gender expectations. Similarly drawing on a multi-country sample of pitches, I observe in Study 3 that women and men prosocial investors on crowdfunding platforms, contrary to expectations, do not differ much in their preferences towards pitches using specific justifications. I discuss how the findings extend the literature and outline the limitations of studies.

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Chapter 1: Introduction

Gender is one of the most frequently studied variables within the entrepreneurship literature. Despite an unprecedented 274 million women running new and established businesses across 74 economies in 2016 (GEM, 2017), women are still positioned as ‘other’ in the masculinized field of entrepreneurship (Marlow & Martinez Dy, 2018). The repercussions of who can legitimately claim the “subject position of ‘entrepreneur’” are most visible in the entrepreneurial financial acquisition process (Ahl & Marlow, 2012: 544). A common finding in the extensive literature on entrepreneurship is that as compared to male entrepreneurs, women entrepreneurs face greater challenges in raising debt financing for new ventures (e.g., Coleman, 2000; Eddleston, Ladge, Mitteness, & Balachandra, 2016; Fay & Williams, 1993; Hisrich & O’Brien, 1982; Riding & Swift, 1990), equity financing from venture capitalists (VCs; e.g., Brush, Carter, Greene, Hart, & Gatewood, 2002; Greene, Brush, Hart, & Saparito, 2001), and growth capital from institutional investors (e.g., Bigelow, Lundmark, McLean Parks, & Wuebker, 2014). These disadvantages also reflect in the fact that women entrepreneurs are less likely to need or seek external financing (Becker-Blease & Sohl, 2007; Orser, Riding, & Manley, 2006). As a consequence of these differences in obtaining financial capital, women-led ventures grow less than ventures run by men (e.g., Alsos, Isaksen, & Ljunggren, 2006; Carter & Allen, 1997; Coleman & Robb, 2012). Overall, considerable evidence suggests that in the “gendered terrain” of entrepreneurship, women confront distinct realities and challenges (Jennings & Brush, 2013). However, even as the primary providers of financial resources for entrepreneurial activities fail to become gender-neutral meritocratic in their approach, there are reasons for hope as new forms of entrepreneurial financing go mainstream.

One alternative means of financing referred to as crowdfunding is seemingly changing the gender dynamics in the field of entrepreneurship. In recent years, crowdfunding has fast emerged as a viable means for nascent entrepreneurs as well as for high-growth ventures to raise finance (e.g., Allison, Davis, Short, & Webb, 2015; Cholakova & Clarysse, 2015; Cumming & Hornuf, 2018; Mollick, 2014). An exciting set of research suggests that in sharp contrast to established sources of funding, crowdfunding is a more conducive avenue for women entrepreneurs to raise financing (Mollick & Robb, 2016). A recent study conducted by a consultancy firm, *PricewaterhouseCoopers*, in collaboration with *The Crowdfunding Center,* found that in 2015-16 women led crowdfunding campaigns were 32 percent more successful in obtaining financial backing than those led by men across a wide range of sectors and countries (PwC, 2017). In an important study, Greenberg and Mollick (2017) examined why women are more likely to succeed at crowdfunding than men. They found strong evidence for *activist choice homophily* hypothesis, which entails female investors disproportionately desiring to help and fund women-led ventures than men led ventures because they perceive women entrepreneurs as facing unfair gender-based structural barriers. In a more recent study, Johnson, Stevenson, and Letwin (2018) replicated the finding that women entrepreneurs are more likely than men entrepreneurs to succeed in crowdfunding context, attributing this relative advantage of women entrepreneurs to psychological mechanisms triggered by stereotyping. In particular, they argued that gender biases held by investors cause them to see women entrepreneurs as stereotypically more trustworthy. Consequently, investors are more inclined to fund women-led ventures. Collectively, these studies suggest that the "wisdom of the lending crowd" may be instrumental in narrowing the gender gap in entrepreneurship through equitable access to financial resources (Mollick & Robb, 2016: 79).

The work on gender dynamics in the crowdfunding context discussed above is although promising, far from conclusive (Leitch, Welter, & Henry, 2018). Indeed, some studies suggest that gender differences in capital allocations on crowdfunding platforms may be similar to the well-established patterns in the traditional funding avenues. For instance, in contrast to the finding that women are more successful on crowdfunding platforms, Barasinska and Schäfer (2014) in a study of German crowdfunding platform found no effect of fund seekers' gender on their chances of raising capital. Furthermore, evidence suggests that contrary to the premise of homophily effects (Greenberg & Mollick, 2017), men still comprise a majority of funders in the crowdfunding context (PwC, 2017).

Notwithstanding these contradictory findings, it is widely acknowledged that crowdfunding is a "disruptive innovation" that through its disintermediation has "disproportionate effects on female entrepreneurs" and has "the potential to 'democratize' entrepreneurship and capital markets by serving as a means for women entrepreneurs as well as women investors to participate more fully" (Coleman & Robb, 2016: 156-157). The alternative and mostly complementary theoretical mechanisms proposed to account for how crowdfunding may be rewriting the deeply institutionalized entrepreneurship scripts that have historically disadvantaged women entrepreneurs have made significant contributions to scholarly understanding.

However, extant research leaves many questions unanswered. First, it is unclear whether the gender dynamics observed in the crowdfunding context is due to sex-based bias operating in favor of women entrepreneurs, feminine stereotype-consistent behaviors of women entrepreneurs, or women entrepreneurs aligning their behavior to masculinized entrepreneurship domain. Without analyzing and calling to attention what unique approaches women who succeed in crowdfunding adopt, research may inadvertently perpetuate sex-based stereotypes in practice. Second, the view that increasing the number of women funders participating on crowdfunding will likely address gender disparity in access to finance through "the potential for a shared experience of gender disadvantage" may be an "oversimplification of the gender dynamic" (Carter, Shaw, Lam, & Wilson, 2007: 438).

A key implication is a need for an emphasis on the distinct set of communicative strategies that women and men entrepreneurs take to attract potential investors. Research that foregrounds biological categorization fails to acknowledge the heterogeneity among women entrepreneurs and offers little insight into whether they will differently benefit when engaging in distinct behaviors in the process of acquiring financial backing. As Marlow and Martinez Dy (2018) note in their recent review of entrepreneurship research, "When women are conceptualized as the personification of gender itself, they are no longer visible as subject beings who exhibit performances of gendered behaviors and, in so doing, demonstrate the multiplicity of possibilities afforded by the contexts in which they are articulated" (p. 8). Some recent empirical attempts in crowdfunding literature have recognized the value of making verbal behaviors (e.g., signaling and storytelling) of women and men entrepreneurs the focal point of inquiry. For instance, Kuwabara and Thébaud (2017) found that whether women were likely to receive loans on crowdfunding platforms depended on the loan purpose described in their pitches. Similarly, Anglin, Wolfe, Short, McKenny, and Pidduck (2018) show that gender role expectations shape how investors react to the rhetoric used by women and men entrepreneurs in their crowdfunding pitches. These studies underscore how communications that women and men entrepreneurs use shape the interpretations of crowdfunding investors and thereby influence their access to capital.

In this dissertation, I aim to contribute to and extend this stream of work that focuses not merely on "the sex of participants as embodied actors," but on "the cultural production of their subjectivities" in the specific context of entrepreneurship and crowdfunding (Calas, Smircich, &

Bourne, 2009: 555). First, I examine whether men and women entrepreneurs differ in their use of symbolic actions in the process of raising capital on crowdfunding platforms. Next, drawing on the notion that entrepreneur gender is a piece of salient demographic information that influences potential investors in crowdfunding contexts, I explore how specific symbolic actions used by women and men entrepreneurs in their crowdfunding campaigns differently affect their chances of successfully raising funding. Lastly, I investigate whether women and men investors on crowdfunding platforms are differently drawn to specific symbolic actions entrepreneurs take.

I build on the fundamental insight that decisions to invest in entrepreneurial ventures are often fraught with information asymmetry and uncertainty, and therefore the process of entrepreneurial finance acquisition is a problem of justification and legitimization (Aldrich & Fiol, 1994). In the entrepreneurship research, we can spot two main types of strategic communicative actions that entrepreneurs may use under such conditions to influence evaluations of their ventures by potential investors and overcome their skepticism about ventures' prospects: 1) signaling; and 2) symbolic actions. Signaling is fundamentally concerned with reducing information asymmetry between entrepreneurs and resources providers (Spence, 2002), and uncertainty about the intrinsic quality of ventures (Spence, 1974). In the signaling perspective, entrepreneurs are "gatekeepers" that actively manage information shared with investors with the objective of demonstrating that their ventures are qualitatively different from others (Sanders & Boivie, 2004; Shepherd & Zacharakis, 2001). In this dissertation, I draw on the general finding from prior research that the second type of strategic communicative act termed *symbolic actions* - a form of verbal and nonverbal communication that seeks to create "appealing, useful, and powerful meanings" (Rindova, 1999: 25; Zott & Huy, 2007) - are crucial for entrepreneurs to acquire resources in the crowdfunding context.

Applying a cultural lens, an emerging stream of research has explored how entrepreneurs may skillfully frame their communications (e.g., pitches and business proposals) to gain favorable interpretations and support of investors (e.g., Cornelissen & Clarke, 2010; Garud, Schildt, & Lant, 2014; Lounsbury & Glynn, 2001; Petkova, Rindova, & Gupta, 2013; Wry et al., 2011; Überbacher, Jacobs, & Cornelissen, 2015; see also Rindova & Srinivas, 2017). Related to and yet distinctive from signaling, symbolic actions engage the "imagination of observers," and "enhance and embellish" the idiosyncratic attributes and characteristics of entrepreneurs and their ventures, making them "more distinctive, vivid and memorable as a stimulus" (Rindova, Petkova, & Kotha, 2007: 55-56). While extant research has mostly focused on cultural and symbolic actions in the context of raising entrepreneurial financing from traditional investors (banks, VCs, and angels), I seek to explore the importance of such actions in the crowdfunding setting. Furthermore, I aim to extend entrepreneurship scholarship in this area by examining gender differences in the effectiveness of symbolic techniques to explain, justify, and promote entrepreneurial initiatives.

Over the last decade, *crowdfunding*, an umbrella term that refers to making an open call to general public on the Internet for donations, debt, and equity financing (Schwienbacher & Larralde, 2010), has emerged as a viable means for nascent entrepreneurs as well as for high-growth ventures to raise finance (Mollick, 2014). One leading crowdfunding platform in the United States, Kiva, alone has helped raise $1.14 billion in loans to successfully fund over 2.8 million low-income individuals (Kiva, 2019). However, an overwhelming majority of crowdfunding campaigns fail to meet their fundraising goals (Clifford, 2016). Furthermore, a majority of entrepreneurial ideas that gain significant traction in raising funds on crowdfunding platforms appear to do so because they added equity investments from angels and venture capitalists before launching their online campaigns (Entrepreneur, 2017). A substantial body of research focusing on the criteria that angels, VCs, and banks use when determining whether to invest in a new venture provides a useful starting point to understand the reasons for such failures. Similarly, the cultural entrepreneurship perspective noted earlier (also see Überbacher, 2014 for review) adds to our understanding of how entrepreneurs can communicate effectively to enhance their chances of crowdfunding success. Despite these contributions, several key differences between traditional sources of investment and crowdfunding - for instance, in terms of diversity of motives for engaging in crowdfunding, professional sophistication of investors, size of funding sought by entrepreneurs, average size of investments, as well as asynchronous nature of interactions between entrepreneurs and investors - suggest an opportunity for research (Cholakova & Clarysse, 2015; Leboeuf & Schwienbacher, 2018; Lambert, Ralcheva, & Roosenboom, 2018). Through this dissertation, I aim to contribute to scholarship on symbolic actions that help entrepreneurs raise finance through crowdfunding.

An emerging stream of research on crowdfunding offers some clues on symbolic actions that entrepreneurs seeking crowdfunding may take and the effectiveness of these actions in resource acquisition. These studies have found that the degree to which entrepreneurs signal, for example, the quality of their preparedness (Mollick, 2014), their product's creativity (Davis, Hmieleski, Webb, & Coombs, 2017), and their venture's competitiveness and risk-taking propensity (Moss, Neubaum, & Meyskens, 2015) through their campaign pages positively affect campaign success. While similarly highlighting the importance of symbolic actions, other studies have underscored the complexity of managing the interpretations that potential investors develop. For instance, Allison and colleagues (2015) find that investors respond positively to entrepreneurial projects framed as an opportunity to help others, but less favorably to business opportunity framing. Signaling incremental innovativeness, but not radical innovativeness has been shown to result in better crowdfunding outcomes (Chan & Parhankangas, 2017). Similarly, stressing the need to carefully manage symbolic communication, Allison, McKenny, and Short (2013) illustrated a positive effect of entrepreneurial narratives that connect current plans to future goals, but a negative effect of highlighting past accomplishments in crowdfunding pitches. Further, they found that narratives that draw attention to external constraints in an entrepreneur's environment and focus on a few key themes have better chances of attracting funding. Collectively, these studies highlight how symbolic strategies enacted through communication become particularly crucial in appealing to the general public that comes from a variety of social milieu.

While prior research has advanced our understanding of entrepreneurial actions and enabling conditions associated with crowdfunding success, two critical issues remain insufficiently addressed. First, although studies provide an empirically grounded understanding of a range of cultural and symbolic strategies that entrepreneurs may use to convince others (e.g., Zott & Huy, 2007), research has to date paid insufficient attention to plural bases of legitimacy judgments (Fisher, Kotha, & Lahiri, 2016; Kraatz & Block, 2008; Tost, 2011), and has not systematically accounted for multiple modes of legitimation and justification that underlie symbolic constructions. In this study, I draw on seminal sociological work of Boltanski and Thévenot (2006) that provides a well-established typology of justifications individuals use to legitimate and rationalize their actions. The authors proposed that in situations requiring justification individuals have to ground their stances in at least one of the six higher-order principles of value: (1) *inspired* principles that value creativity, passion, and uniqueness; (2) *domestic* principles that assert the importance of traditions, hierarchy, and social ties; (3) *fame* principles that value public opinion, recognition, and popularity; (4) *civic* principles that assert collective welfare, solidarity, and equality;(5) *market* principles that define value in terms of money, desire, and gains; and (6) *industrial* principles that value professional expertise, planning, and efficiency.

The second issue with extant entrepreneurship literature is that it has for the most part not invoked a gendered perspective on the phenomenon of symbolic actions (see Anglin et al., 2018; Balachandra, Briggs, Eddleston, & Brush, 2019 for some exceptions). A scholarly focus on gender differences is, however, timely and warranted in light of the evidence that entrepreneurship is a gendered phenomenon. Given the potential of such scholarly attention on gender to challenge the dominant insights in the mainstream entrepreneurship research (Jennings & Brush, 2013), I seek to examine the nature and extent of gender differences in entrepreneurs' cultural and symbolic strategies.

In Study 1, following social psychology research on gender roles and stereotypes (Eagly & Karau, 2002), I examine whether women and men entrepreneurs use different justifications in their crowdfunding pitches. Relatedly, in Study 2, drawing on the notion of entrepreneurship as emancipation (Rindova, Barry, & Ketchen, 2009), I investigate whether to succeed in crowdfunding context, women and men entrepreneurs must justify in ways that largely confirm or disconfirm their gender stereotypes. I develop hypotheses for the context of *prosocial crowdfunding* - a specific model of crowdfunding that mostly attracts investors keen on making a difference to others through their financial contributions (Allison et al., 2015). Lastly, in Study 3, integrating theoretical and empirical analysis on prosociality (Bolino & Grant, 2016), gender differences in values (Feather, 1987), and gender differences in information processing styles (Meyers-Levy, 1989), I explore whether women and men prosocial investors are differently drawn to specific justifications used in crowdfunding pitches.

The dissertation begins with a review of literature in Chapter 2 on gender differences in access to and provision of financial capital for entrepreneurial purposes. I survey literature focusing on traditional sources of capital as well as an emerging body of research on crowdfunding. Within these literature streams, I focus on signaling and symbolic actions entrepreneurs use to influence legitimacy perceptions and worthiness judgments of potential investors. Next, in Chapter 3, I discuss two theoretical frameworks - Rindova and colleagues' (2009) entrepreneurship as emancipation; and Boltanski and Thévenot's (2006) typology of justification - that I draw on to study gender differences in crowdfunding context. In Chapters 4-6, I develop hypotheses on (1) the effect of gender on the use of specific justifications; (2) gender differences in the effectiveness of using particular justifications in prosocial crowdfunding context; and (3) gender differences in the appeal of particular justifications to prosocial crowdfunding investors. In Chapter 7, I outline the empirical context, analytical techniques, and results. In the final Chapter 8, I discuss the findings, contributions to literature, limitations, and opportunities for future research.

Chapter 2: Literature Review

Financial resource acquisition is a prominent theme in entrepreneurship literature. A common finding in the eclectic stream of research is that the process of financial resource acquisition is “a complex and challenging undertaking” because of information asymmetry and uncertainty surrounding the value of entrepreneurial opportunities (Martens, Jennings, & Jennings, 2007: 1108). The lack of performance track record and lack of assets make it difficult for entrepreneurs to convince others of the legitimacy and value of their ventures (Fisher et al., 2016). As such, both conventional wisdom and research suggest that this task of establishing legitimate worth is generally more challenging for women entrepreneurs than men entrepreneurs given the stereotypical beliefs associated with gender and entrepreneurship (Jennings & Brush, 2013). Numerous scholars have examined strategies, specifically deliberate communication practices, that entrepreneurs could employ to convince key stakeholders of the legitimacy and value of their ventures.

In the ensuing section, I focus on research addressing gender differences in entrepreneurs’ access to financial capital. Next, I survey research that has examined two strategic communication practices facilitating financial resource acquisition: signaling and symbolic actions. I focus on research stream that calls attention to gender differences associated with these deliberate communication practices. Following this, I survey research on gender differences in investors’ preferences and behaviors. I organize these three major sections by first outlining theoretical and empirical works related to traditional sources of financial capital (banks, business angels, and venture capitalists), and then focusing on a growing body of research pertaining to crowdfunding that primarily draws amateur investors. I end with a summary of these literature streams in relation to the scope of this dissertation.

GENDER DIFFERENCES IN ENTREPRENEURS' ACCESS TO FINANCIAL CAPITAL

About 36 percent of all businesses in the US, according to one estimate, is women-led (Brush, Greene, Balachandra, & Davis, 2014). If women-owned firms in the US were a separate country, with about $3 trillion in economic contributions, it would globally be the fifth largest in terms of gross domestic product (GDP) in the world (CWBR, 2009). Despite this socio-economic potential, evidence consistently shows that women-led ventures do not have access to equitable financial capital (e.g., Coleman, 2000; Coleman & Robb, 2009; Constantinidis, Cornet, & Asandei, 2006; Coleman & Robb, 2017). In 1999, less than 5 percent of businesses with women on the executive team received venture financing (Brush, Carter, Gatewood, Greene, & Hart, 2004). This estimate was although 10 percent higher for 2011-2013, gender disadvantages become more apparent when considering the fact that only 2.7 percent of the ventures receiving VC funding during this period had a woman CEO (Brush et al., 2014). This gender disparity observed in access to entrepreneurial financing is even more pronounced outside the US and developed countries (Leitch et al., 2018).

A variety of factors have been explored to understand this gender gap in access to capital. A significant body of the research on gender differences in entrepreneurship has focused on addressing the following questions: Are the providers of financial capital discriminatory in their practices against women entrepreneurs? Do differences in the characteristics of women entrepreneurs and women-led ventures explain gender disparity in financing? How does gendered social networks contribute to furthering the gender gap in financial capital acquisition? Below, I survey literature that has addressed these questions in the context of traditional as well as emerging sources of financial capital for new ventures.

Entrepreneur Gender and Traditional Sources of Capital

Supply-side Accounts. Gender of an entrepreneur is one of the critical factors influencing the decision-making of entrepreneurial finance providers (Alsos & Ljunggren, 2017; Lam, 2010). In terms of debt capital, some research suggests that banks use different criteria for assessing women and men applicants and that their process of evaluating is discriminatory, although unintentionally and covertly, towards women entrepreneurs. For instance, Carter and colleagues (2007) document evidence suggesting that women entrepreneurs seeking bank loans are assessed using different criteria than their male counterparts. They found that while women applicants were judged based on the extent of research they had undertaken about the proposed business, men were judged based on information about the entrepreneurial opportunity, financial history, and personal characteristics. Fay and Williams (1993) observed that female entrepreneurs with high school education were less likely to obtain a loan than male entrepreneurs with similar education levels. Similarly, Alsos and Ljunggren (2017) find that investors interpret a similar lack of entrepreneurial experience for female and male entrepreneurs differently, to the disadvantage of women. Moreover, female entrepreneurs do not enjoy the same line of credit as male entrepreneurs (Riding & Swift, 1990). Coleman (2000) showed that women entrepreneurs received debt financing on worse terms than their male counterparts. She found that women-led ventures paid a higher interest rate and faced higher collateral requirements than men-led ventures. Further, research suggests that women entrepreneurs face greater structural barriers in accessing equity financing as well (Edelman, Manolova, & Brush, 2017). Overall, female entrepreneurs generally have a smaller amount of startup capital than male entrepreneurs (Verheul & Thurik, 2001).

Some studies, however, fail to find supportive evidence for gender discrimination by investors. For instance, based on 1993 national survey data on debt capital, Coleman (2000) found that while women entrepreneurs were significantly less likely to have applied for debt capital, their loan requests were not likely to be rejected based on their gender. Carter and colleagues (2007) found that bank loan officers, for the most part, use similar criteria to assess female and male entrepreneurs. That gender does not have a direct effect on obtaining debt capital is corroborated by other studies investigating bank financing (Arenius & Autio, 2006; Eddleston et al., 2016; Watson, Stuetzer, & Zolin, 2017). Orser and Ellott (2015) suggest that "gender discrimination is more likely an artifact of…a congregation of female-owned firms in relatively high-risk sectors," and that venture "size and sector account for what might seem like gender effects in the terms of credit advanced in commercial loans, leases, and supplier financing" (p. 141). Relatedly, one study found that ventures run by female and male entrepreneurs did not differ in the composition of debt and equity (Verheul & Thurik, 2001). Similarly, Orser and colleagues (2006) showed that female and male business owners were equally likely to receive equity financing. According to Center for Venture Research, while women-led ventures only comprise about 12.7 percent of ventures seeking angel investments, the proportion of women-led ventures receiving angel investments is about the same as for men (Sohl, 2008). This absence of gender difference in obtaining early-stage angel investments was corroborated recently by Edelman and colleagues (2017).

Demand-side Accounts. Contrary to researchers addressing supply-side factors for a gender gap in entrepreneurial financing, some scholars have explored the demand-side issues.

This stream of research has suggested that the observed gender disparity can be attributed to the higher risk aversion of women, their tendency to not resort to external capital, and their propensity to seek lower capital (Coleman & Robb, 2016). However, these demand-side explanations have been refuted as well. For instance, Edelman and colleagues (2017) found that women and men did not significantly differ in their readiness for seeking angel investment, i.e., in their perception that their venture had the required management capability, resource base, and intellectual property protections, and therefore was ready to grow. Similarly, based on an empirical investigation of over 4000 ventures, Coleman and Robb (2017) recently concluded that although "both women and men share growth aspirations and are capable of growing their firms…women raise dramatically lower amounts of financial capital and use a much smaller percentage of external equity in particular" (p. 159).

Relational and Structural Accounts. Numerous studies, drawing on the notion that social ties influence venture financing (e.g., Baker, 1990; Hoshi, Kashyap, & Scharfstein, 1990; Petersen & Rajan, 1994), have examined the gendered nature of entrepreneurial network structure as well as gender differences in entrepreneurs' use of networks for resource acquisition. Drawing on the concepts of embeddedness (Granovetter, 1985) and social capital (Coleman, 1988), organizational researchers have argued that economic explanations of venture investment decisions are "undersocialized and incomplete," and a key point to recognize is that social ties influence the evaluation process by providing an important mechanism to overcome information asymmetry (Shane & Cable, 2002: 364). Several studies have examined the core assertion that dyadic ties and network structure provide useful information to investors about an entrepreneurial venture beyond what the personal characteristics of an entrepreneur and financial aspects of the undertaking may cue. For example, Uzzi and Gillespie (1999) found that the duration and multiplexity of the relationship between a venture and a bank, as well as the structure of venture's ego-network of ties with banks, influenced venture financing decision of banks. Shane and Stuart's (2002) examination of university start-ups revealed that new ventures with founders having direct and indirect relationships with investors are most likely to receive venture funding. Specifically examining investors' initial decisions to fund seed-stage ventures, Shane and Cable (2002) discovered that social ties influence the decisions by facilitating the gathering of private information. Several researchers have also revealed how social relationships influence investors' decision to fund a venture through the indirect mechanism of the status of the other early investors affiliated with the venture. In particular, these studies posit that high-reputation affiliates simplify the decisions of potential investors by certifying the venture's quality and its prospects (e.g., Hsu, 2004; Lee, Pollock, & Jin, 2011; Wuebker, Hampl, & Wüstenhagen, 2015).

Overall, entrepreneurship research addressing social ties and network structure suggests two primary mechanisms that influence entrepreneurs' chances of obtaining financial capital. The first mechanism, termed the *pipes* perspective (Podolny, 2001), suggests that social networks are a channel for information and resource exchange. In this view, an entrepreneur's network positions determine his or her access to financial resources. The second mechanism, termed the *prism* perspective, suggests that networks provide a "lens…through which the qualities of actors are inferred by potential exchange partners" (Podolny, 2001: 58). In this second view, investors' decision to fund an entrepreneur's success at raising venture finance is influenced by the entrepreneur's "otherwise unobservable characteristics" reflected through social networks (Lin, Prabhala, & Viswanathan, 2009: 5). This stream of work posits that social capital helps entrepreneurs "get through the door'' (Baron & Markman, 2000; 2003: 44), and that "there is a cumulative, reciprocal relationship between financial capital and social capital" (Uzzi &

Gillespie, 1999: 398). A key theme in the surveyed research is that social networks facilitate entrepreneurial finance exchange as they have the potential to reduce information asymmetry by making available entrepreneur and venture related information that is relevant to investment decisions. The implications of much of the research is that some entrepreneurs may have a strategic advantage in raising financial capital as their social networks increase their chances of reaching out to potential investors and receiving positive evaluations (e.g., Gulati & Higgins, 2003; Hallen, 2008; Hallen & Eisenhardt, 2012; Vissa & Chacar, 2009; Vissa, 2012).

Evidence suggests that women's network, especially in the initial venture development stages, are different than their male networks in terms of dimensions such as network size, network diversity, network density, and tie strength (Hampton, McGowan, & Cooper, 2011; Klyver & Terjesen, 2007). Some scholars have suggested that women's networks are inadequate to facilitate resource acquisition (Foss, 2017). It is argued that much of the differences between the performances of women and men run ventures can be attributed to different social networks in which women and men entrepreneurs are embedded (Aldrich, Reese, & Dubini, 1989). Gender-based homophily, i.e., the tendency of individuals to form ties with others of the same gender as theirs, is a common phenomenon limiting access to capital at various phases of entrepreneurship. In support of this assertion, Ruef, Aldrich, and Carter (2003) found that women entrepreneurs were less likely to find associates with whom to co-found a new venture. Drawing on the theories of homophily (i.e., same gender teams more likely than mixed gender teams) and ecological constraints (i.e., team members are more likely to be from same geography or industry), they showed that women, as a numerical minority group amongst the entrepreneurial population, tended to be solo entrepreneurs. Similarly, a cross-cultural study by Klyver and Grant (2010) reveals that women entrepreneurs are less likely to have personal ties with an entrepreneur than do male entrepreneurs. They note that the absence of role models affects their active participation in the entrepreneurship process. Extant research also reveals notable differences in women's access to resource providers. In line with the homophily hypothesis, studies find that the lower representation of women among angel investors and venture capitalists is a challenge for women entrepreneurs seeking to raise financial capital (Coleman & Robb, 2016; Greene et al., 2001). Findings reveal that both women and men entrepreneurs are more likely to seek capital as well as receive capital from angel networks comprised primarily of members of the same gender as theirs (Becker-Blease & Sohl, 2007). It has been argued that the homophilous nature of professional networks also has limited women academicians' ability to engage in commercially oriented behaviors, including patenting and entrepreneurship (Parker, Hayter, Lynch, & Mohammed, 2017).

In terms of mobilizing resources through their networks, women are more likely to turn to family and friends to obtain information and advice, while men are more likely to have access to useful information from formal sources, including professional acquaintances and consultants (Robinson & Stubberud, 2009). Greve and Salaff (2003) found that relative to male entrepreneurs women entrepreneurs' tendency to draw more on their kin for information and knowledge persisted across different phases of the entrepreneurship process. Research suggests that this relatively high proportion of kin, along with less diversity in the social networks of women entrepreneurs, puts them at a resource disadvantage in the entrepreneurship process (Renzulli, Aldrich, & Moody, 2000). Furthermore, women entrepreneurs tend to seek ties for both instrumental and social support, whereas social support does not seem to be core to male entrepreneurs' networking activities (Hampton et al., 2009; Smeltzer & Fann, 1989). More generally, male entrepreneurs are more instrumental in their networking activities (Díaz-García &

Carter, 2009). In contrast, women entrepreneurs have strong tie orientation and are reluctant to see their network ties in purely instrumental ways (Aldrich et al., 1989).

It is important to note, however, that some studies indicate that women entrepreneurs' networks are similar to those of men. For example, in a study of business owners in Northern Ireland, Cromie and Birley (1992) reported that women entrepreneurs were as active as their male entrepreneurs in building networks and did not significantly differ in the profiles of contacts in their network. These results that women are no more likely than men to consult family and friends are consistent with prior research by Aldrich, Reese, and Dubini (1989) on network activity and network density. Greve and Salaff (2003) presented evidence suggesting no gender differences in women and men entrepreneurs' discussion network size (i.e., the number of personal contacts that entrepreneurs turn to for discussing venture-related activities) as well as in their efforts to develop and maintain such relations. Similarly, Díaz-García and Carter (2009) found limited support for the hypothesis that female and male entrepreneurs differed in the resources mobilized through their networks.

In all, notwithstanding the unresolved debate on the role of demand and supply factors, the fact remains that women entrepreneurs are, overall, disadvantaged in access to entrepreneurial finance (Jennings & Brush, 2013). Research suggests that although the gender gap in access to debt capital has largely reduced, women continue to have difficulty obtaining financing from equity investors. Several explanations, including discrimination in the investment decision-making process, differences in women-led ventures, and differential social networks of men and women entrepreneurs have been put forth to account for this gender disparity. As a consequence of financial barriers, women nascent entrepreneurs are less likely to ask for financing (Kwapisz & Hechavarría, 2018; Orser et al., 2006; Sena, Scott, & Roper, 2012). Moreover, such disadvantages lead to lower early business growth (Alsos et al., 2006) and long-term underperformance for women-run businesses (Marlow & Patton, 2005).

Entrepreneur Gender and Crowdfunding

Context. Crowdfunding has emerged as a new and legitimate source of financing for new ventures (Leboeuf & Schwienbacher, 2018). The advent and exponential growth of crowdfunding have been attributed to the proliferation of the Internet, Web 2.0, and social media technologies (Moleskis & Alegre, 2018). Although total funding volumes on crowdfunding are small compared to traditional investments, they are nevertheless rapidly growing, from an estimated worldwide $0.8 billion in 2010 to $25 billion in 2015 (Belleflamme, Omrani, & Peitz, 2015; Cumming & Hornuf, 2018). Furthermore, crowdfunding increases the chances of ventures raising larger amounts of capital as required from professional investors (Leboeuf & Schwienbacher, 2018).

Crowdfunding differs from traditional sources of finance, including banks, angel investors, and VCs. First, backers on crowdfunding platforms are motivated to fund a campaign for a wide range of reasons besides financial returns, including altruism, recognition, reciprocity, identification, and "warm-glow" (Andreoni, 1990; e.g., Leboeuf & Schwienbacher, 2018). Second, backers on crowdfunding platforms are generally less informed and experienced, and are thus likely to evaluate funding potential differently than sophisticated investors (e.g., Lambert et al., 2018). Third, unlike angels and VCs, the backers on crowdfunding platforms do not get involved in advising or day-to-day operations of the invested ventures. A fourth distinguishing feature of crowdfunding is that it facilitates financing in a virtual setting. The computer-mediated and asynchronous nature of interactions make the cues that are typically salient and relied upon in face-to-face settings for making subjective assessments less available for backers. Lastly, both the funding goal of entrepreneurs and the average size of investments made by a single backer tend to be lower than those in traditional funding avenues (Moleskisl & Alegre, 2018).

Furthermore, scholars have argued that crowdfunding does not merely allow entrepreneurs to circumvent traditional gatekeepers of finance but solves a matching problem by allowing individuals with surplus income to back entrepreneurs seeking funding (Younkin & Kashkooli, 2016). Besides access to low cost capital, research suggests that entrepreneurs seeking crowdfunding benefit from access to more information about potential market, customer feedback about their product and service offerings, and opportunities to gain publicity (Agrawal, Catalini, & Goldfarb, 2014; Belleflamme, Lambert, & Schwienbacher, 2010; Gerber, Hui, & Kuo, 2012; Mollick, 2014).

Women-advantage Accounts. While a large number of studies find that females face more barriers in raising financial capital than males, the relationship between gender and resource seeking is not straightforward in the crowdfunding context. Crowdfunding platforms are generally more gender diverse than a traditional entrepreneurial setting. While 94 percent of US CEOs are men (Huang & Kisgen, 2013), Vismara, Benaroio, and Carne (2017) found that about 17 percent of CEOs and on an average about 25 percent of TMT members participating on an equity-based crowdfunding platform in the UK were men. Furthermore, in contrast to the majority of evidence in traditional funding context, some research suggests that women entrepreneurs succeed at a better rate than male entrepreneurs in obtaining finance in the crowdfunding context. A recent analysis of over 465,000 crowdfunding campaigns across 205 countries in 2015-16 found that while 22 percent of campaigns led by women reached their funding goals, as compared to 17 percent of campaigns led by men (PwC, 2017).

Supporting the assertion that crowdfunding has democratized access to funding for women entrepreneurs (Mollick & Robb, 2016), Pope and Sydnor (2011) found that women were more likely to succeed at raising funds than men on Prosper.com, a US based peer-to-peer lending crowdfunding platform. This finding that women are more successful than men is corroborated by Marom, Robb, and Sade's (2016) study of a reward-based crowdfunding platform, as well as by Tao, Dong, and Lin's (2017) study of Chinese lending-based crowdfunding platform. In explaining the advantage that women enjoy in the crowdfunding context, Gorbatai and Nelson (2015) draw on the effect of gender-specific language use. They documented how women's frequent use of inclusive and positive emotion language and less frequent use of money language that highlights financial aspects mediate their crowdfunding success. Greenberg and Mollick (2017), on the other hand, attributed the reason for women's success at crowdfunding to "activist choice homophily"- a tendency of women backers to see funding women-led ventures in greater proportion as a way to "remediate some of the historical discrimination against women" (p. 364). More recently, Johnson and colleagues (2018) revealed through an experimental study that stereotypical gender beliefs induce amateur backers to see women as more trustworthy than men and that it was this psychological mechanism that explained their greater willingness to fund women entrepreneurs.

In contrast to the above-cited works, Barasinska and Schäfer (2014) found that gender was unrelated to funding success on a German lending-based crowdfunding platform suggesting that the "wisdom of the crowd" facilitates equal, if not better access, to financial resources for women. However, in a study of DonorsChoose, donation-based crowdfunding platform for public school teachers, Radford (2016) reported evidence suggesting that men, fund seekers using masculine language, and fund seekers in male-typical job roles were more likely to succeed at raising finance than others. Kuwabara and Thébaud (2017) reported evidence that women seeking funds specifically for purposes of starting, running, or growing a business were less likely to succeed at raising loans on Prosper.com. They also found that women who were perceived as more feminine (as indicated by their facial attractiveness) were even less likely to receive funding. Similarly, corroborating gender-based discrimination based on facial femininity, some studies suggest that potential backers' funding decisions may be significantly influenced by the appearance of an entrepreneur seeking funding. Ravina (2019) showed that the physical look of the person seeking funds is an important characteristic that affect the probability of funding. She found that beautiful borrowers were nearly 11.7% more likely to obtain capital. Relatedly, Duarte, Siegel, and Young (2012) revealed that fund seekers who appear trustworthy in their photographs on crowdfunding platforms were more likely to succeed in raising finance.

Relational and Structural Accounts. As in the context of traditional sources of funding, social networks influence amateur investors' evaluations on crowdfunding. Although empirical attempts taking a network theory, embeddedness, social capital perspective are fairly sparse, some studies have explored network dynamics to understand the venture financing decisions on crowdfunding platforms. In an important study examining the dynamics of crowdfunding, Mollick (2014) found that size of social networks of entrepreneurs is positively related to funding success, suggesting that social networks may facilitate personal connections with funders as well as endorsements of quality. Lin, Prabhala, and Viswanathan (2013), in a study of Prosper.com, a lending-based crowdfunding platform facilitating unsecured loans to borrowers, show that social capital of borrowers (friendship ties formed outside the economic context of crowdfunding platform) increases chances of funding. Similarly, social capital has been shown to increase the chances of success on equity-based crowdfunding platforms (Vismara, 2016). Agrawal, Catalini, and Goldfarb (2011) reported evidence indicating the importance of entrepreneurs' offline social network for crowdfunding success. They discovered that investment patterns of geographically distant and local funders differ such that the latter who are geographically co-located with the entrepreneur seeking fund are less responsive to the investment decisions of others. The likely explanation, they suggest, is that local funders who tend to be friends and family of the entrepreneur get a better sense of quality through offline access to the entrepreneur, and therefore rely less on signals of quality as indicated by funds already raised on the crowdfunding platform. Relatedly, Zvilichovsky, Inbar, and Barzilay (2013) reported evidence which suggests network exchange patterns with tendencies for direct reciprocity as well as indirect reciprocity (Faraj & Johnson, 2011). They found that crowdfunding campaigns initiated by entrepreneurs who have previously supported others have higher chances of raising funds. Butticè, Colombo, and Wright (2017) showed that serial crowdfunders, i.e., entrepreneurs who repeatedly turn to crowdfund, were more successful than novice crowdfunders in raising finance, presumably because of the accumulated social capital from ties with backers of earlier successful campaigns. Similarly, Skirnevskiy, Bendig, and Brettel (2017) reported evidence that this internal social capital explains some variance in the success of future crowdfunding campaigns.

Some studies have addressed the effect of social networks on crowdfunding outcomes through the mechanism of promotions, herding, mimicking. Evidence suggests that crowdfunding project creator spend substantial time and effort to publicize their campaigns on social media and other social networks (Hui, Greenberg, & Gerber, 2013). Thies, Wessel, and Benlian (2014) found that buzz a campaign generates on social media platforms positively influences chances of backing by supplementing entrepreneur and venture information presented on crowdfunding platforms. Some research, however, suggests that crowdfunding backers may differ in their information needs depending on the strength of their tie with the entrepreneur seeking funds, and therefore that the effectiveness of promotions efforts on social media platforms may be contingent on the tie strength. Polzin, Toxopeus, and Stam (2018) examined the relative importance of three types of information – information about the entrepreneur seeking funds; information about project and its objectives; and information about financial planning and risks - for in-crowd (i.e., backers with strong ties to the entrepreneur) and out-crowd (i.e., backers with no ties to the entrepreneur) on different crowdfunding platforms. They show that on reward, lending, and equity based crowdfunding platforms, in-crowd attached more importance to information about the entrepreneur. On donation-based crowdfunding platforms, out-crowd were found to rely more on information about the objectives of the entrepreneur's undertaking. Lastly, they also reported evidence suggesting that on lending and equity based crowdfunding platforms, financial information was less relevant for in-crowd. Relatedly, Borst, Moser, and Ferguson (2018) found that whether entrepreneurs were able to attract funding from latent ties (i.e., people unknown to the entrepreneur, but who can be reached through some digital communication mode) depended on the number of social media messages posted, the content of the message (e.g., informative vs. direct requests for funding), as well as on the social media platform (*Facebook* vs. *Twitter*).

Taken together, the works cited above and as noted within recent reviews (e.g., Moritz & Block, 2016) suggest that social networks and related dynamics significantly influence crowdfunding backers. Much of the evidence indicates that the *relational* aspects of an entrepreneurs' social network, which refer to quality of relationship among actors (e.g., roles and identities of individuals the entrepreneur is connected to), play a more important role than the *structural* aspects of social network that relate to position of an actor in the network (e.g., degree centrality of the fund seeker in a network) in addressing information asymmetry and impacting the chances of obtaining funds (Lin et al., 2009). This stream of research also illustrates that to enhances chances of success, entrepreneurs may customize communication approaches based on several factors, including the strength of social ties with backers and type of communication platform.

Research on crowdfunding has, thus far, accumulated comparatively little knowledge about gender differences in the nature and implications of social networks. However, one aspect of networks that has drawn the attention of scholars addressing gender differences in crowdfunding performance is the principle of homophily, i.e., social ties among people of the same gender forming at a higher rate than among people of the opposite gender (McPherson, Smith-Lovin, & Cook, 2001). In support of homophily effects, it is reported that in crowdfunding settings women-led projects form a higher proportion of female investors' portfolio than male investors' portfolio (Marom et al., 2016). In fact, Greenberg and Mollick (2017) find support for tendencies of a type of homophily they call 'activist choice homophily.' They find that women investors disproportionately invest in women-led projects especially in sectors where women are historically underrepresented and structurally disadvantaged. The evidence for gender homophily effects is, however, not yet conclusive. For instance, in their study focused on the dyadic level and based on a static representation of crowdfunding networks, Posegga, Zylka, and Fischbach (2015) find no support for gender homophily. Similarly, Lin and Pursiainen's (2018) study finds no support for the homophily mechanism. Drawing on Greenberg and Mollick's (2017) notion of activist choice homophily, they hypothesize that in environments where women are more disadvantaged, women-led campaigns are more likely to outperform those led by men in raising capital as female investors' tendencies to back women would be stronger in such environments.

The evidence, however, indicated that women-led projects' relative performance advantage was less pronounced in the US states with low gender equality.

Another issue related to social networks that some research examining gender dynamics in crowdfunding has addressed is the network size. In a study of gender dynamics in crowdfunding, Marom and colleagues (2016) found that women-led projects attracted fewer investors that did men led projects. They show that among projects with single project leaders, women were backed on an average by 65 investors, whereas men had 81 backers. The authors suggest that this is possibly due to narrower personal networks of women.

GENDER DIFFERENCES IN THE STRATEGIC COMMUNICATIONS FACILITATING FINANCIAL CAPITAL ACQUISITION

Decisions to invest in entrepreneurial opportunities are often made under conditions of information asymmetry, high uncertainty, and time constraints (Kirsch, Goldfarb, & Gera, 2009). New venture quality is only imperfectly observable. Startups lack the performance track record that is useful in establishing legitimacy and demonstrating value of entrepreneurial opportunities, and commitment and competence of entrepreneurial team (Delmar & Shane, 2004; Fisher et al., 2016; Fisher, Kuratko, Bloodgood, & Hornsby, 2017; Navis & Glynn, 2011; Petkova et al., 2013; Rindova et al., 2007). In the entrepreneurship research, we can spot two main types of strategic communications that entrepreneurs may use under such conditions to influence potential investors' perceptions of legitimacy, evaluations of worth, and judgments about ventures' future prospects: *signaling* (Connelly, Certo, Ireland, & Reutzel, 2011); and *symbolic communication* (e.g., Aldrich & Fiol, 1994; Lounsbury & Glynn, 2001; Petkova, Rindova, & Gupta, 2008; Zott & Huy, 2007; see also Rindova & Srinivas, 2017; Überbacher, 2014). Whereas the signaling perspective is concerned with *what* information the entrepreneur chooses to share with resource holders, and symbolic communication perspective primarily addresses *how* the information is presented to them.

Signaling

Signaling in the Context of Traditional Sources of Capital. Signaling in entrepreneurship is fundamentally concerned with reducing information asymmetry between entrepreneurs and resources providers (Spence, 2002), and uncertainty about the intrinsic quality of ventures (Spence, 1974). In the signaling perspective, entrepreneurs are "gatekeepers" that actively manage the information shared with investors with the objective of demonstrating that their ventures are qualitatively different from others (Sanders & Boivie, 2004; Shepherd & Zacharakis, 2001). Signals are useful when they are observable, costly or difficult to imitate (Connelly et al., 2011; Spence 1973). The extent of signaling that an entrepreneur has to engage in depends on the severity of information asymmetry between the entrepreneur and the resource holder. In fact, the potential signaling cost incurred is an important factor driving entrepreneurs' choice of financing source (Ueda, 2004).

Given the liability of newness, how entrepreneurs signal the value of their ventures, and their commitment and behavioral consistency are crucial to attracting the attention of and convincing investors (Busenitz, Fiet, & Moesel, 2005; Shepherd & Zacharakis, 2001). The importance of both interpersonal and informational signals conveyed through various textual and verbal forms of communication has been investigated. Interpersonal signals relate to the entrepreneur's behavior, whereas informational signals relate to the quality and viability of a venture (Huang & Knight, 2017). Certo (2003) suggested that investor perceptions of the prestige of a venture's board reduce the liability of newness associated with the venture. Lester and colleagues (2006) discovered that educational prestige of a venture's top management team enhances organizational legitimacy and influences investor valuations. Similarly, Ko and McKelvie (2018) showed that entrepreneurs' education and founding experience has a signaling effect on early-stage investors. Further, Prasad, Bruton, and Vozikis (2000) posited that proportion of the entrepreneur's wealth invested in his or her venture is an important signal that angel investors can use to infer the value and commitment. Elitzur and Gavious (2003) show that obtaining angel investor backing helps alleviate the moral hazard problem between entrepreneurs and VCs. Relatedly, Islam, Fremeth, and Marcus (2018) reported evidence showing that government research grants received by startups have signaling value when attracting VC funding. In a more recent study, Plummer, Allison, and Connelly (2016) demonstrated that third-party affiliations are not only useful in signaling the new venture's legitimacy, but also in enabling other signals of value and commitment to be positively interpreted by investors in the "noisy" signaling context of early-stage financing.

Taken together, the signaling perspective suggests that entrepreneurs can effectively make use of idiosyncratic attributes and characteristics associated with them and their ventures to alter the perceptions of quality and prospects that potential investors hold in positive ways.

Gender Differences. Research showing notable differences in the criteria used for evaluating female and male entrepreneurs (e.g., Carter et al., 2007) indicates that signals are not uniformly interpreted and rewarded by investors for the two groups. For example, Wu and Chua (2012) find that banks tend to interpret information about the legal form of startup differently for female and male entrepreneurs seeking loans. They show that although sole proprietorship as an organizational type signals meager resources and lack of sophistication, the penalty in terms of borrowing cost for women sole proprietorships is about 73 basis points higher than male sole proprietorships. Along similar lines, a study by Eddleston and colleagues (2016) reveals that banks reward information signaled by female and male entrepreneurs differently. They found, for instance, that high past performance and number of employees were seen as signals of quality for male entrepreneurs, but not female entrepreneurs. Drawing on gender role congruity theory (Eagly & Karau, 2002) and the notion of signal fit (i.e., the extent to which public and private information correlate; Connelly et al., 2011), the authors suggest that these signals of performance and venture size are ignored for women entrepreneurs as they are not consistent with stereotypical characteristics of women.

Other studies, however, suggest that given the stereotypical perceptions of women as lacking human and social capital associated with starting and growing a business, women entrepreneurs stand to benefit from signaling their social ties with industry experts and individuals with considerable venture-related experience (Murphy, Kickul, Barbosa, & Titus, 2007). In a study of a small investment fund in Norway, Alsos and Ljunggren (2017) show that for women entrepreneurs, regardless of their startup's industry sector, only their relevant experiences in "masculine" industries (e.g., petroleum), but not "feminine" industries (e.g., spa) are rewarded as valued signals by investors. They also suggest that because male entrepreneurs do not face similar challenges of legitimacy arising from the ascriptive gender characteristics they do not need to use any such compensatory signaling strategies. Furthermore, they found that women entrepreneurs, in fact, attempt to compensate for the perceived lack of relevant capital by signaling their pertinent other experiences as well as by signaling the competencies of their board members.

Signaling in the Context of Crowdfunding. On crowdfunding platforms, the evaluation of an entrepreneur's venture is based on the information presented in the pitches (Zhou et al., 2015). Just as in traditional funding context, entrepreneurs on crowdfunding platforms also have incentives to present only favorable information about them and their ventures. Unlike the sophisticated investors in traditional funding who typically have greater expertise and resources to discern such biases in the information presented, the nonprofessional financial resource providers on crowdfunding rely on their perceptions, opinion, and judgment when evaluating entrepreneurs' campaigns. Thus, signals are arguably much more critical in the high information asymmetry context of crowdfunding. In the absence of efficacious signals, backers may undervalue the venture and perceive it as unworthy of their funds.

Besides showing that entrepreneurs benefit by signaling their abilities to potential crowdfunding backers (Allison, Davis, Webb, & Short, 2017), several empirical attempts to understand the strength of 'value' signals and 'commitment' signals in helping backers more accurately evaluate which crowdfunding campaigns to fund have been reported in the literature. Belleflamme and colleagues (2015) posited that by choosing to pay fees to crowdfunding platform for launching their campaigns, entrepreneurs might signal quality to potential backers, thus suggesting that the price structure of the crowdfunding platform may be an effective signal. Relatedly, Cumming, Leboeuf, and Schwienbacher (2015) illustrated how the choice of the model on a reward-based crowdfunding platform (keep-it-all versus all-or-nothing) is a clear, costly, and credible signal to the crowd backers about entrepreneurs' commitment to not go ahead with the venture in case of insufficient funds. They posit that when entrepreneurs select an all-or-nothing model vis-à-vis a keep-it-all model, crowd perceives lower risk. In the context of equity crowdfunding, Ahlers and colleagues (2015) discovered that retaining equity has been found to help reduce levels of uncertainty and positively influence funding success. This finding was corroborated by Vismara's (2016) study of two equity-based crowdfunding platforms in the UK.

Focusing on the dimensions of product and venture, Davis and colleagues (2017) showed that signals of product creativity are related to crowdfunding success. Relatedly, Chan and Parhankangas (2017) found that entrepreneurs are more likely to succeed in crowdfunding if they signal incremental innovativeness and downplay radical innovativeness aspects of their venture. Moss and colleagues (2015) found the degree to which ventures signal autonomy, competitive aggressiveness, and risk-taking is positively associated with crowdfunding success.

At the crowdfunding campaign level, it is posited that the initial backing the entrepreneurs receive itself is a signal for future funding rounds (Belleflamme et al., 2015). More specifically, backing from professional investors participating in crowdfunding platforms may serve as a quality signal for the crowd (Kircher & Postlewaite, 2008). A key point to recognize is that endorsements from both other crowd investors and professional investors could potentially be effective signals (Moritz, Block, & Lutz, 2015).

In an important study examining the dynamics of crowdfunding, Mollick (2014) illustrated that producing a video for a crowdfunding campaign, providing updates to backers, and having a correctly spelled pitch are signals of preparedness and quality that influence crowdfunding backers. Block, Hornuf, and Moritz's (2018) study of campaigns on equity-crowdfunding platform corroborates some of the Mollick's (2014) findings in reward-based crowdfunding context. They reported evidence indicating that posting updates during on crowdfunding campaigns are although may not always be costly signals, have a positive signaling effect on the number and amount of investments received.

Some scholars have focused on understanding the specific mechanisms through which signals affect backers' funding decisions in the crowdfunding context. Exploring the lending behavior in the context of a Chinese crowdfunding platform, Chen, Lou, and Van Slyke (2015) discovered that a lenders' trust in borrowers, but not their perceived risk of borrowers, influenced willingness to lend, which in turn influenced actual lending behavior. They found that while the perceived quality of information shared by the borrowers promotes favorable trust and risk perceptions, perceived social capital influenced trust, but not risk perceptions. They also documented that although perceived risk has no direct impact on lending behavior, it hurts initial trust in borrowers. Similarly, Greiner and Wang (2007) focused on the importance of trust-building mechanisms to address perceptions of uncertainty and risk in the context of the lending-based crowdfunding platform. They documented evidence suggesting that structural assurances (verified bank account), economic cues based on borrower information (higher credit grade; homeownership), as well as social cues based on borrower's social environment (higher ratings of groups that borrowers are members of; endorsements from other community members), increases initial trust between borrowers and lenders on Prosper.com.

In all, researchers have made progress in articulating the salience of quality signals in the crowdfunding context. Works examining the dynamics of crowdfunding support the assertion that the "disparate groups of amateurs who act as funders" (p. 14) on crowdfunding platforms respond to "known quality signals in the same way as other providers of entrepreneurial capital" (p. 7), "regardless of their expectations for financial return" (Mollick, 2014: 4).

Surprisingly, as yet, little theoretical and empirical work has addressed gender differences in whether and how individuals who seek crowdfunding signal information to investors. This neglect is despite the striking observation in the crowdfunding context that investors in the crowdfunding market often make use of gender characteristic conveyed through pitch text and accompanying pictures as a signal of trustworthiness (Johnson et al., 2018) and legitimate need (Greenberg & Mollick, 2017). Accumulated evidence (e.g., Barasinska & Schäfer, 2010; Chen, Li, & Lai, 2017; Gavurova, Dujcak, Kovac, & Kotásková, 2018; Pope & Sydnor, 2011) persuasively shows that the online crowdfunding market statistically discriminates in favor of women.

Symbolic Communication

Symbolic Communication in the Context of Traditional Sources of Capital. A symbol "conveys socially constructed meanings beyond its intrinsic content or obvious functional use" (Zott & Huy, 2007: 72), and symbolic communication refers to strategic creation and deployment of symbols by social actors to influence interpretations of their audience (Rindova, 1999). Unlike signals, symbols need not be costly nor strongly correlated with the underlying venture, product, or entrepreneur of which positive perceptions are being created and managed (Zott & Huy, 2005). Entrepreneurial actions that highlight symbolic dimensions of a product or venture help reduce uncertainty, influencing cognitive and emotional reactions, and increase the perceived value in the minds of resource holders (Rindova & Petkova, 2007). Related to and yet distinctive from signaling, symbolic actions engage the "imagination of observers," and "enhance and embellish" the idiosyncratic attributes and characteristics of entrepreneurs and their ventures, making them "more distinctive, vivid and memorable as a stimulus" (Rindova et al., 2007: 55-56). Symbolic approaches aim to create a fit between the set of meanings associated with a focal object (e.g., product, organization, and entrepreneurial initiative) and self-concepts of stakeholders (e.g., investors, employees, suppliers, and consumers; Ravasi & Rindova, 2008).

A substantial body of research, categorized as taking a 'cultural entrepreneurship' or 'symbolic management' perspective, has examined symbolic actions that enable entrepreneurs to influence subjective perceptions of investors, gain legitimacy, and acquire financial resources (e.g., Aldrich & Fiol, 1994; Fisher et al., 2017; Wry et al., 2011; Starr & MacMillan, 1990; Zimmerman & Zeitz, 2002; Zott & Huy, 2007; see also Rindova & Srinivas, 2017). Broadly, this literature has suggested that ventures are more likely to acquire financial resources when they gain legitimacy, i.e., come to be seen as "desirable, proper, and appropriate within some socially constructed system of norms, values, beliefs, and definitions" by resource holders (Suchman, 1995: 574). Studies have corroborated this assertion that legitimacy increases chances of venture financing (e.g., Deeds, Mang, & Frandsen, 2004; Pollack, Rutherford, & Nagy, 2012).

Constructing unique and resonant identities using a variety of symbolic actions is seen as central to the process of gaining legitimacy (Fisher et al., 2016; Überbacher, 2014). Studies in this stream view entrepreneurs as skilled cultural actors strategically using various forms of communication and linguistic tools in their legitimation efforts (e.g., Lounsbury & Glynn, 2001; Überbacher et al., 2015). Scholars have articulated the importance of cultural resources such as stories (Garud et al., 2014; Lounsbury & Glynn, 2001), narratives (Downing, 2005), rhetoric (Daly & Davy, 2016), frames (Aldrich & Fiol, 1994; Fisher et al., 2017), metaphors (Cornelissen & Clarke, 2010), and argumentation (van Werven, Bouwmeester, & Cornelissen, 2015). Some empirical efforts have demonstrated the effectiveness of these various symbolic actions. For example, Zott and Huy (2007) show how skillful and frequent use of a variety of symbolic activities facilitates entrepreneurs in gaining legitimacy and acquiring financial resources. They document four major categories of symbolic actions based on whether they convey personal legitimacy, professional organizing, organizational achievement, and stakeholder relationship quality. Martens and colleagues (2007) report evidence showing that effective narratives, net of purely factual information about an entrepreneurial firm, explain some of the variances in the firm's ability to secure capital. They argued that storytelling influences resource acquisition by helping convey the unambiguous identity of an entrepreneurial firm, elaborate the logic behind proposed means of exploiting opportunities, and embed entrepreneurial endeavors in familiar discourses. Holt and Macpherson (2010) reported how the use of Aristotle's rhetorical forms of ethos, logos, and pathos in concert facilitated entrepreneurs' efforts of addressing their multiple constituents' potential "feelings of emptiness and superficiality… skepticism…and resentment" (p. 35). Taking a different tack, Petkova and colleagues (2013) examined the role of sensegiving activities – which refer to communication activities of organizations that explicitly attempt to influence the meaning that their stakeholders construct - in attracting the attention of potential investors. They found that the intensity and diversity of sense giving activities promote media attention, which in turn draws positive evaluations from VCs. This study is important because it moves away from a focus on the content of symbolic actions and begins to examine the information properties of such activities.

Looking more closely at the characteristics of a successful pitch, studies have shown that passion (Li, Chen, Kotha, & Fisher, 2017), preparedness (Chen, Yao, & Kotha, 2009; Pollack et al., 2012), and masculine behaviors (Balachandra, Briggs, Eddleston, & Brush, 2013) conveyed through presentation of content is positively related to funding success. More recently, Clarke and colleagues (2018) articulated a link between a range of verbal and nonverbal forms of communication in pitches, and the propensity to invest. Examining language and gesturing in a pitch, the authors hypothesized that a pitch with high levels of figurative language and high levels of gesturing in a pitch is more likely to attract investors. Evidence indicated that figurative language in a pitch, i.e., use of personal anecdotes, analogies, and metaphors, had limited effects. However, they found that the skilled use of nonverbal hand gestures had a positive influence on investors' judgments and decision-making.

Taken together, the symbolic management perspective in entrepreneurship illustrates the power and potential of skillful management of meanings for influencing legitimacy judgments and consequently obtaining financial resources. Scholarly efforts have been successful in documenting the types of symbolic actions that helps entrepreneurs persuade resource holders about what the venture might become, what course of action might best realize that potential, and what financial resources are required in this endeavor. A key point to recognize from this stream of research is that skills such as ability to perceive others accurately (i.e., social perception skills), the ability to influence others' attitudes and behavior (i.e., social influence skills), the ability to adapt to situations (i.e., social adaptability), the ability to induce positive reactions in others (i.e., impression management skills), as well as the ability to use symbols for creating "resonant identity claims" (i.e., cultural skills) are key to the process of obtaining venture financing (Baron & Markman, 2000; Überbacher, Jacobs, & Cornelissen, 2015: 2). They suggest that in the investment decision-making context, "successful entrepreneurs, as social actors, use impression management behaviors to create and maintain identities as investable propositions, and that the investment opportunity 'pitch' is akin to the situation of an actor auditioning for a part in a play or a fil who succeed at raising finance" (Mason & Harrison, 2003: 31). In contrast to signaling, the symbolic perspective of entrepreneurship suggests that providing information is only one part of the legitimation process; perceptions of legitimacy are also influenced by how information is "framed and encoded" (Rindova, 1999: 23).

Gender differences. Entrepreneurship scholars acknowledge that language plays a crucial role in the social construction and activation of gender stereotypes when assessing entrepreneurial potential (Ahl, 2002, 2007; Ahl & Nelson, 2015; Malmström, Johansson, & Wincent, 2017). Research suggests that investors prefer pitches made by men (Brooks, Huang, Kearney, &

Murray, 2014). Contrary to this, Balachandra and colleagues (2019) found that investors were not biased against pitching women entrepreneurs per se, but against the display of feminine-stereotyped behaviors, by male and female entrepreneurs alike. Eddleston and colleagues (2016) found gender differences in how providers of debt capital interpreted signals of quality by entrepreneurial ventures. They showed that high past performance and larger venture size was a positive signal for entrepreneurs led by men, but not women. In an interesting study, Kanze, Huang, and Conley (2018) showed how women entrepreneurs' communication pattern with investors can explain their disadvantages in obtaining capital. They found that VCs tend to pose a different set of regulatory-focused questions to women and men entrepreneurs, prompting them to respond with matching regulatory-focus. They reported evidence indicating that women entrepreneurs' prevention-focused responses explain disparate financing outcomes. Relatedly, a small set of studies suggest that women entrepreneurs can attenuate the gender penalty by skillfully engaging in strategic actions. Lee and Huang (2018) found that in the process of obtaining financial capital, women entrepreneurs can attenuate gender penalty by framing the venture as contributing to social and environmental welfare. Similarly, Balachandra and colleagues (2019) reported evidence suggesting that entrepreneurs are more likely to be successful at raising finance if they pitched with a fewer display of feminine-stereotyped behaviors (e.g., emotional expressiveness, communal, and warmth).

Symbolic Communication in the Context of Crowdfunding. Although administrative scientists have long been interested in understanding the legitimation mechanisms when seeking financial resources, it has only recently gone so far as to posit that new venture legitimation is audience dependent and to elaborate on the types of symbolic actions that are likely to be effective when seeking crowdfunding (Fisher et al., 2017). Some crowdfunding research, however, offers clues on the nature of symbolic actions that entrepreneurs seeking crowdfunding may use and the effectiveness of these actions in gaining legitimacy and consequently financial resources. Unlike in the traditional funding context, the symbolic activities that entrepreneurs can engage is restricted to the domain of computer-mediated and pseudo-personal forms of communication (text, image, and video; Moritz et al., 2015). Much of this research suggests that besides 'hard' facts or objective and verifiable information associated with the entrepreneur and venture seeking crowdfunding (e.g., credit scores, amount of finance sought, past delinquencies, and other financial indicators), 'soft' factors (i.e., information about entrepreneur and venture that cannot be quantified or completely summarized in a numerical score; Liberti & Petersen, 2017), and therefore, symbolic aspects of entrepreneurs' message (e.g., stated purpose of the finance sought, explanation for poor credit scores, linguistic characteristics of the appeals, framing, and humanizing multimedia content such as entrepreneur's picture) predict the success of crowdfunding outcomes (e.g., Dorfleitner et al., 2016; Feller, Gleasure, & Treacy, 2017; Larrimore, Jiang, Larrimore, Markowitz, & Gorski, 2011; Michels, 2012; Pötzsch & Böhme, 2010). In contrast to one of the main tenets of signaling theory that signals have to be costly to be efficacious, crowdfunding research taking a cultural perspective emphasizes that backers' subjective impression of entrepreneurs seeking funds and their ventures are more important (Anglin, Wolfe, et al., 2018). Based on the premise that backers' beliefs, attitudes, preferences, emotions, and values influence their decisions to fund, this stream of research suggests that the symbolic actions are instrumental for entrepreneurs to make backers' subjective interpretations and evaluations compatible with what they desire.

Several investigations have focused on narratives entrepreneurs use and how they impact funding decisions (Morse, 2015). An interesting study by Herzenstein, Sonenshein, and Dholakia

(2011) examined how identity claims made in entrepreneurs' narratives influenced backers' funding decisions on a lending-based crowdfunding platform. The authors identified six types of identity claims that entrepreneurs seeking crowdfunding use: a 'trustworthy' entrepreneur; an entrepreneur in need because of 'economic hardship'; a very 'hardworking' entrepreneur; a 'successful' entrepreneur; an honest or a 'moral' entrepreneur; and a 'religious' entrepreneur. Their data shows that entrepreneurs who claim more identities are more likely to obtain finance than who do not. They also find that the 'trustworthy' entrepreneur and 'successful' entrepreneur identity claims were more effective than other identity claims. Allison and colleagues (2013) illustrate that entrepreneurs seeking funds on prosocial lending-based crowdfunding platforms are best served by avoiding highlighting their accomplishments and tenacity, and discussing multiple themes in their narratives. They also show that blame rhetoric that attributes the causes of problems confronting entrepreneurs to external context and present concern rhetoric that creates a sense of urgency for the funds requested are more likely to be successful in their crowdfunding campaigns. In the same crowdfunding context, Allison and colleagues (2015) discovered that entrepreneurial narratives framed as a traditional investment opportunity with emphasis on profit and risk-taking are less attractive to potential backers than a narrative framed as an opportunity to help others. They attribute these effects to cognitive evaluation theory which posits that extrinsic cues thwart intrinsic motivation of prosocial investors. Similarly, Moss, Renko, Block, and Meyskens (2018) found that entrepreneurs were more likely to succeed in raising funds on prosocial lending-based crowdfunding platforms when they positioned their venture in a single category rather than as a hybrid entity and emphasized the social value rather than the economic value of their venture. Further, in a different context of a reward-based crowdfunding platform, Allison and colleagues (2017) revealed that entrepreneurs could benefit by promoting group identification between them and prospective backers. They also found that entrepreneurs were more likely to be persuasive when portraying their venture as a personal dream. Majumdar and Bose (2018), however, reported evidence suggesting that crowdfunding pitches that make a rational appeal or a credibility appeal, rather than an affective appeal, were more likely to receive funding on a donation-based crowdfunding platform.

A set of studies suggests that linguistic elements (e.g., parts-of-speech; emotion words; words related to cognitive processes; sensory related words; Tausczik & Pennebaker, 2010) of the entrepreneurs' appeal to crowdfunding backers relate to success in raising funds. For example, Parhankangas and Renko (2017) illustrated that social entrepreneurs could increase the chances of their crowdfunding success by using more concrete and precise language, and by using linguistic styles that is interactive and low on psychological distancing in their appeals to potential backers. Positive and negative sentiments in the language entrepreneurs use on crowdfunding platforms are also found to explain variance in their fundraising success. Anglin, Short, and colleagues (2018) found that the use of positive psychological capital language highlighting hope, optimism, resilience, and confidence improves chances of crowdfunding success. Similarly, Han and colleagues (2018) found that positive sentiment was positively correlated with success in raising funds on a lending-based crowdfunding platform. They also reported evidence showing that negative sentiment was negatively associated with success, and factors associated with perceived quality of the entrepreneurs' messages (readability, completeness, and sentiment) explained some variance in funding success. Greiner and Wang (2007) showed that the content quality of entrepreneurs' appeal, as measured by the formality of the listing title, increased the chances of obtaining funds on Prosper.com. Similarly, Zhou and colleagues (2015) found that argument quality of entrepreneurs' appeal - as indicated by the number of words, readability, and the ratio of positive and negative words – predicted success on Kickstarter, a reward-based crowdfunding platform. In the same crowdfunding context, Mitra and Gilbert (2014) found that several words and phrases distinguished funded from unfunded campaigns. Based on their finding that these words and phrases explained 58.56 percent variance in funding success, they concluded that language is "a fundamental force which drives the 'crowd' to fund crowd-projects."

Another stream of research has advanced the importance of symbolic actions by empirically examining the relative importance of hard information (i.e., information that can be reduced to numbers and unambiguously interpreted) and soft information (i.e., information that cannot be easily quantified; e.g., ideas, statements of future plans, and market commentary; Liberti & Petersen, 2017). Iyer, Khwaja, Luttmer, and Shue (2015) provide compelling evidence that in the crowdfunding market, soft information (e.g., a reason for seeking funds and a picture of the borrower) are more important when screening lower quality borrowers. They show that by relying on hard as well as soft information, crowd lenders can effectively infer fund seeker's creditworthiness and predict borrower's default 45 percent more accurately than what is achievable using credit score – a traditional measure available to banks, but not to crowd lenders. Research claims that soft information is more consequential when investors share no social ties with fund seekers outside the crowdfunding platform (Liberti & Petersen, 2017).

Collectively, this stream of research, as some reviews have also noted (e.g., Di Pietro, 2019), highlights how symbolic actions enacted through computer-mediated communication become particularly crucial in appealing to the general public that comes from a variety of social milieu. Cultural, discursive, and linguistic resources can be skillfully used by entrepreneurs to shape subjective social meanings evoked in the crowdfunding backers in specific ways to gain legitimacy and obtain financing. In all, the cited studies suggest that how entrepreneurs construct their crowdfunding appeals and deliver their message matters on crowdfunding platforms.

Gender Differences. Some research has focused on gender differences in entrepreneurs' use of cultural resources and symbolic actions. In a study of a popular crowdfunding platform, Indiegogo, Gorbatai and Nelson (2015) present evidence indicating that the content of women's pitches is generally higher on position sentiment, vividness, and socially inclusive language, and lower in the use of finance or monetary language than those of men. They also find that these differences in language use partially explains the crowdfunding success of women.

Other researchers have focused on the differential effects of using the same language for female and male entrepreneurs. In a recent study, Anglin, Wolfe, and colleagues (2018) examined gender differences in the crowdfunding performance of using low to moderate levels of narcissistic rhetoric in pitches. Drawing on social role theory, they hypothesized that a pitch that highlights one's authority, superiority, as well as an entitlement for funding will be beneficial for men, but not women. While they found no support for a moderation effect of gender on the proposed curvilinear relationship between narcissistic rhetoric and performance, there was evidence to the contrary among racial minorities. In line with general findings that women are more likely to be successful at raising capital through crowdfunding (Greenberg & Mollick, 2017), it was observed that racial minority women performed better than racial minority men when using narcissistic rhetoric.

GENDER DIFFERENCES IN INVESTORS' PREFERENCES AND BEHAVIORS

Investor Gender and Traditional Sources of Capital

A substantial body of research has examined objectives and priorities of venture capitalists, angels, banks, and other financial intermediaries making entrepreneurial investments (e.g., Fried & Hisrich, 1994; Mason & Stark, 2004). Studies indicate that professional investors base their evaluation on several criteria, including market attractiveness (e.g., Tyebjee & Bruno, 1984), human capital of entrepreneurs (e.g., Shepherd, 1999), management commitment (e.g., Wells, 1974), quality of management team (e.g., Robinson, 1987), expected rate of return (e.g., Poindexter, 1976), and investment liquidity (e.g., MacMillan, Siegel, & Narasimha, 1985). Further, research suggests that the decision criteria used vary by type of investor. Unlike equity investors, banks base their investment decisions substantially on financial aspects of a venture, paying relatively much less weight to capabilities of entrepreneurs (Mason & Stark, 2004). Amongst equity investors, whereas VCs follow a more formal due diligence approach to investments, angel investors are shown to base their decisions on personal relationships (Ding, Sun, & Au, 2014). Hall and Hofer (1993) reported evidence suggesting that the evaluation criteria used by VCs varied for initial proposal screening and later stages of proposal assessment. They found that in the early stages of evaluation, profitability and growth of the industry of the proposed venture mattered. But at this stage neither venture strategy nor characteristics of the new venture team were important. In the subsequent steps of evaluation, trust in the source of the business proposal influenced the VC consideration and decision-making. Unlike VCs, angel investors, as Haar, Starr, and MacMillan (1988) documented, do not seem to be as interested in a business plan and industry factors. However, angel investors factored the management ability of the new venture team as well as the market need for proposed product/service offerings.

That the early stage venture investment activity has traditionally been male-dominated has been a core issue for researchers keen to address the gendered terrain of entrepreneurship (e.g., Amatucci, 2016). Historically, women have comprised no more than 15 percent of angel investors and 10 percent of venture capitalists (Sohl, 2008; Harrison and Mason, 2007; Vismara et al., 2017). One study found that the proportion of female partners in VC firms declined significantly from 10 percent in 1999 to 6 percent in 2014 (Brush et al., 2014). Globally, even among informal venture capital and angel investors, women are underrepresented with some studies estimating the share of women to be at around 34 percent for the US (Bygrave & Reynolds, 1999; Maula, Autio, & Arenius, 2005).

Several researchers have addressed the issue of systematic differences between men and women participating in the provision of entrepreneurial capital. The accumulated evidence in entrepreneurship and management literature on gender differences in investment patterns is mostly consistent with gender differences found across a variety of tasks by scholars across disciplines. One critical individual difference that has been emphasized in numerous studies is the attitude to risk. A robust finding in this literature stream is that women take less risk than men across a variety of tasks (Byrnes, Miller, & Schafer, 1999; Croson & Gneezy, 2009), including investing in financial assets (Beckmann & Menkhoff, 2008; Bayyurt, Karışık, & Coşkun, 2013; Faff, Hallahan, & McKenzie, 2011; Felton, Gibson, & Sanbonmatsu, 2003; Grable, 2000; Graham, Harvey, & Huang, 2009; Heminway, 2009; Khan, Tan, & Chong, 2016; Maltby & Rutterford, 2006; Niessen & Ruenzi, 2007; Olsen & Cox, 2001; Rutterford & Maltby, 2007; Sunden & Surette, 1998; Wang, 2009). However, the broader research on retail and professional investment behavior suggests that the gender effect on risk-taking is weakened with the level of education and access to financial information (e.g., Atkinson, Baird, & Frye, 2003; Bannier & Neubert, 2016; Dwyer, Gilkeson, & List, 2002; Gerrans & Clark-Murphy, 2004; Heshmat, 2012; Rutterford & Maltby, 2007; Wang, 2009). A second closely related individual difference emphasized in behavioral finance research on gender differences in overconfidence. There is considerable evidence which supports the position that women are less confident in making financial decisions than men (Barber & Odean, 2001; Croson & Gneezy, 2009; Estes & Hosseini, 1988; Heminway, 2009; Hodge, 2003; Kent, 2002). Consistent with these findings on risk aversion and confidence, entrepreneurship research suggests that women business angels have less risk tolerance and lower confidence than their male counterparts (Becker-Blease & Sohl, 2008, 2011).

Extant research in behavioral finance reveals that men and women make investment decisions differently (Heminway, 2009; Nath, Holder-Webb, & Cohen, 2013; Talpsepp, 2010). For instance, in a study of retail, professional, and institutional investors across Malaysia, Khan, Tan, and Chong (2016) illustrate gender differences in preferences. They find that female stock market investors show a higher preference for such characteristics as the firm’s age, stock price, trading volume, dividend payments, and liquidity than male investors. Similarly, findings in entrepreneurship research indicate that women business angels and venture capitalists base their investment decisions on different criteria than their male counterparts. For example, women bank loan officers are more likely than male loan officers to focus on criteria that proxy for financial stability and responsibility when evaluating startups seeking funds (Carter et al., 2007). However, research suggests that mere financial returns do not induce women investors. They are motivated as well by the desire to support women entrepreneurs (Sohl & Hill, 2007), and more generally, to help next generation entrepreneurs succeed (Harrison & Mason, 2007). In keeping with these expectations, women angel investors tend to choose sectors that their male counterparts overlook (Amatucci, 2016), are generally more likely to support socially beneficial products and services (Harrison & Mason, 2007), and more likely to be involved in socially responsible investing (Junkus & Berry, 2010; Nath et al., 2013). Similarly, other observed patterns can be interpreted as evidence of gendered investment attitudes and behaviors. Kwon and Arenius (2010) found that female investors were less likely than male investors to invest in entrepreneurs with whom they do not have close ties, and instead tended to invest in family and kin. Substantial evidence suggests that women investors attract more women-owned businesses than male investors (Amatucci, 2016; Sohl & Hill, 2007). As such, VC firms with women partners are twice as likely to invest in companies with women on the executive team, and thrice as likely to invest in companies with women CEOs (Brush et al., 2014).

Behavioral finance research suggests that gender differences in investment practices can be explained by differences in information processing styles of men and women (Graham, Stendardi, Myers, & Graham, 2002). The selectivity model in marketing literature proposes that when making judgments men and women attend to a different set of cues from their environment (Meyers-Levy, 1988, 1989; Meyers-Levy & Sternthal, 1991; Meyers-Levy & Maheswaran, 1991; Meyers-Levy & Malaviya, 1999). According to this model, women are more comprehensive in their attempts to assimilate information, while men tend to employ simplifying heuristics (Darley & Smith, 1995). A substantial body of research on consumer and investment behavior has focused on the nature and consequences of different information processing strategies of men and women (see Meyers-Levy & Loken, 2015 for review). For example, in a US-based study, Nath and colleagues (2013) found that women retail investors, relative to men investors, make a higher demand for and use corporate social responsibility information in their decision-making. As yet, however, entrepreneurship and broader management research have not pursued the implications of selectivity model for investment strategies of traditional and nonprofessional investors.

In contrast to the above-surveyed studies, some scholars suggest that gender differences in investors' values, attitudes, and behaviors are largely limited. A study of over 50,000 individuals in China revealed no significant gender differences in investment behaviors (Feng & Seasholes, 2008). Some entrepreneurship researchers make similar claims. In an exploratory study of women business angels, Harrison and Mason (2007) found that within-gender differences in investment attitudes, motivations, and preferences were much larger than between gender. Becker-Blease and Sohl (2007) did not find a homophily effect in the awarding of angel investments for the period 2000-2004. Relatedly, Wilson, Carter, Tagg, Shaw, and Lam (2007) found that male and female bank loan officials did not systematically differ in how they construed women and men led ventures. However, Beck, Behr, and Guettler (2013) found that although female and male loan officers did not significantly differ in the criteria used for screening applications and were alike in their acceptance rates, loans screened by female bank officers performed significantly better than those screened by male loan officers. Taken together, these studies reporting limited or no gender differences in investors' preferences and behaviors is outweighed by a larger body of evidence pointing otherwise.

Investor Gender and Crowdfunding

Unlike the stark male-dominated traditional investment landscape, more women are participating as investors on crowdfunding platforms than ever before (Alois, 2018; Mollick & Robb, 2016). According to one estimate, women crowdfunders make up about 30 to 44 percent of investors (Marom et al., 2016). One study based on data of a UK based equity crowdfunding platform found that although the proportion of female investors per campaign was 21.5 percent, they tended to invest 34 percent more than male investors (Vismara et al., 2017). As such, some scholars have drawn on these supply-side dynamics to suggest that crowdfunding has the potential to democratize entrepreneurial financing for women (Coleman & Robb, 2016; Vismara et al., 2017).

This increasing popularity of crowdfunding across gender has perhaps stimulated a new stream of work that has examined gender differences in funding patterns of crowdfunding backers. Studies have, for example, explored whether gender differences in risk attitudes and overconfidence explain crowdfunding investment patterns. Much of this crowdfunding research is in line with the general finding demonstrated by numerous economic experiments that women are more risk-averse than men (Croson & Gneezy, 2009). For instance, a recent study suggests that men invest in riskier crowdfunding campaigns than women (Hervé, Manthé, Sannajust, & Schwienbacher, 2017). As Mohammadi and Shafi (2018) show, the greater risk aversion of women is reflected in the female crowdfunding investors choosing to invest less in firms that are high-technology based, younger in age, and that offer a higher percentage of equity. Additionally, they found that women crowdfunding investors exhibited a herding behavior by passively following male investors. However, these findings of gender differences in risk aversion are not conclusive as yet. For instance, Barasinska (2010) found that in the context of Smava, a German lending-based crowdfunding platform, there was no gender difference in the propensity for risk-taking. Thus, more theoretical and empirical works are needed to address inconsistent findings related to gender effect on risk propensity of amateur investors.

One last theme explored in the crowdfunding context is gender homophily tendencies of crowdfunding investors. Recent evidence suggests that women investors are more likely to invest in crowdfunding campaigns led by women, while male investors are only slightly more likely to invest in male-led ventures (Marom et al., 2016; Vismara et al., 2017). To account for these observed entrepreneur-investor gender interaction effects in crowdfunding context, Greenberg and Mollick (2017) proposed the notion of activist choice homophily. In contrast to interpersonal homophily, activist choice homophily is the tendency of women (or any member of a disadvantaged group) to extend disproportionately high levels of support to other women (or other members of the disadvantaged group) to help them overcome structural constraints in their environment.

LIMITATIONS OF EXTANT RESEARCH

Based on the above survey of the literature, I note five main limitations of extant research. First, while much is known about the mechanisms of entrepreneurial financing involving traditional avenues, our understanding of variety of entrepreneurial projects seeking crowdfunding, goals of nontraditional crowdfunding investors, and decision criteria used by them are limited. Barring a few exceptions, studies have not systematically investigated individual and contextual factors associated with successful crowdfunding on different types of platforms.

Second, scholarly understanding of how entrepreneurs can convince investors of the legitimacy and value of their endeavors (ventures, projects, or initiatives) through the communication mode of pitches is relatively sparse (Clarke, Cornelissen, & Healey, 2018). The application of signaling and symbolic perspectives to the study of crowdfunding is yet to occur substantially. “The nature of how entrepreneurs signal quality, legitimacy, and preparedness,” as Mollick (2014) observes, “is much less defined in the virtual setting of crowdfunding than in traditional new venture settings, and future scholarship into this process may add to existing theory in this important area" (p. 14). Research has only recently gone so far as to posit that new venture legitimation is audience dependent (Überbacher, 2014). As Fisher and colleagues (2017) note, crowdfunding backers unlike their traditional counterparts are likely to make legitimacy judgments based on community institutional logic (Thornton, Ocasio, Lounsbury, 2012). They posit that backers on crowdfunding platforms tend to "view new venture support as a form of cooperative capitalism," "depend on trust and reciprocity to make new venture judgments," be "drawn to ventures that demonstrate a commitment to community values and ideology," "connect with new ventures on an emotional level," and "draw a distinction between ventures that are 'in' their community versus those that not part of the community" (p. 59). Developing this idea in some depth, they propose that entrepreneurs seeking crowdfunding are effective when they create a perception that they are actively involved in the community, highlight the contributions the venture will make to the community through a prototype, and garner endorsement from prominent community members on the platform. As they note, further theorizing about what entrepreneurs may do to establish legitimacy in the crowdfunding context, and empirical assessment of the effectiveness of the approaches under different conditions and settings are needed.

Third, the common strategic perspective in management and entrepreneurship research about cultural and symbolic actions is predicated on a few limited assumptions. This research considers that entrepreneurs may instrumentally mobilize cultural resources and engage in symbolic behaviors to gain legitimacy and influence investors. It highlights how culture is not regulative of entrepreneurial processes, but rather is a "tool-kit" that serves strategic purposes (Swidler, 1986), and suggests that language is not merely descriptive, but constitutive of entrepreneurial value claims. This instrumental view, however, has not sufficiently addressed the normative, higher-order principles that constrain entrepreneurs' cultural and symbolic actions.

Further, this view does not account for individual characteristics (e.g., education and gender) and situational factors (e.g., country) that shape the entrepreneurs' mobilization of specific cultural and symbolic resources over others in their actions.

A fourth limitation arises from prior research's portrayal of legitimation in the nascent stages of venture as mostly a gender-neutral process (Swail & Marlow, 2018). But gender dynamics observed in both traditional financing and crowdfunding contexts suggest that social ascriptions of gender are a critical factor influencing legitimacy evaluations. In fact, legitimacy judgments are often based on such generic categories that individuals belong to (Huy, Corley, & Kraatz, 2014; Tost, 2011). Ceteris paribus, merely being male often elicits positive legitimacy judgments as the domain of entrepreneurship is largely masculinized (Jennings & Brush, 2013). However, the findings related to gender effect in the crowdfunding context seem to largely not align with this expectation (Johnson et al., 2018). A systematic analysis of the content of legitimacy judgments for men and women in the crowdfunding context may help shed light on why women generally tend to succeed more than men in obtaining crowdfunding.

Lastly and relatedly, theoretical discussions on the nature and distinctiveness of symbolic actions that women and men undertake to influence legitimacy perceptions remain relatively sparse. Moreover, gender differences in the efficacy of different symbolic strategies as well as gender differences in the appeal of these strategies remain to be systematically explored.

Chapter 3: Theoretical Background

A significant challenge for new ventures raising capital is establishing legitimacy (Fisher et al., 2016). Gaining legitimacy and justifying worthiness of an entrepreneurial endeavor becomes particularly challenging in the context of crowdfunding. Given the diverse profiles, motivations, preferences, and expectations of the pool of potential funders that crowdfunding platforms draw, the criteria underlying judgments of legitimacy and value are presumably more heterogeneous than in the traditional financing contexts. In this chapter, I argue that the theoretical perspective of entrepreneurship-as-emancipation (Rindova et al., 2009) offers a particularly useful and timely lens to both account for a variety of entrepreneurial activities seeking crowdfunding and examine the multiplicity of evaluation criteria used by the crowd. Further, I elaborate on how the theory of justifications proposed by Boltanski and Thévenot (2006) provides a useful conceptual framework to understand distinct ways in which entrepreneurs can justify their projects in the crowdfunding context. Before discussing the relevance of these two complementary perspectives to examine the central questions of this dissertation, I provide a brief overview of the empirical context of prosocial crowdfunding.

THE CONTEXT OF PROSOCIAL CROWDFUNDING

A recent stream of crowdfunding research suggests that funders engage in crowdfunding for a variety of reasons including the opportunity to invest, gain early access to new products, support ideas, and derive community benefits (Agrawal et al., 2014; Leboeuf & Schwienbacher, 2018; Mollick, 2014). Evidence indicates that primary motivation of backers, whether altruism, warm glow, identification, recognition, rewards, or profits, varies across different types of crowdfunding platforms that have evolved over the last decade (Cumming & Hornuf, 2018;

Lebouef & Schwienbacher, 2018). Depending on what the backers receive in return for providing financial resources to individuals seeking funds, crowdfunding platforms can take four different forms: donation, debt, rewards, and equity.

A *donation-based* crowdfunding platform connects fund seekers with backers who are philanthropically motivated (Leboeuf & Schwienbacher, 2018). According to one estimate, such platforms facilitated over $2.85 billion in donations in 2015 (Massolution, 2015). GoFundMe and JustGiving are among the most popular donation-based platform. Experiment.com is a niche donations-based platform. Backers on a donation-based platform typically receive no monetary or material benefits from supporting a project.

The second type of crowdfunding platform is a *rewards-based* model. On such platforms, campaign backers receive tangible rewards (e.g., early access to products) proportionate to their financial support. Kickstarter and Indiegogo are two of the most popular rewards-based crowdfunding platforms. Backers on reward-based platforms are typically nonprofessional investors who participate on the platform to pre-purchase a product, support an entrepreneur, promote a cause, or gain recognition (Leboeuf & Schwienbacher, 2018). Reward-based crowdfunding platforms are based on two models: keep-it-all (KIA); and all-or-nothing (AON). In the KIA model, entrepreneurs can keep the entire pledged amount, even if their campaign goals are not reached, whereas, in the AON model, entrepreneurs get the pledged amount only if the campaign goal is achieved. In contrast to the substantial risk taken by an entrepreneur in the AON model, the risk is shifted to the crowd in the KIA model as entrepreneurs may go ahead with underfunded projects in the latter (Cumming et al., 2015). Evidence suggests that both these types of rewards-based platforms have been a key source of financial capital for new ventures (Mollick & Kuppuswamy, 2014). For instance, Kickstarter alone has helped over 139,000 projects raise

$3.52 billion in pledges since its inception in 2009 (Kickstarter, 2018). Besides facilitating access to financial capital, rewards-based platforms are claimed to offer another unique benefit to new ventures. The extra information gathered about backers who choose to pre-purchase products on such platforms presumably provides useful feedback to entrepreneurs on the market potential of their products (Chemla & Tinn, 2017).

In the third type, referred to as *equity-based* crowdfunding (e.g., Seedrs), entrepreneurs exchange ownership stakes in exchange for backer's contribution. Although equity crowdfunding model has not picked up in many countries due to legal restrictions (Bruton, Khavul, Siegel, & Wright, 2015), this rapidly growing model which facilitated $2.5 billion investments in 2015 is expected to grow to $36 billion in 2020 (Massolution, 2015). Equity-based platforms usually attract both amateur and professional investors (Leboeuf & Schwienbacher, 2018).

The last category of a crowdfunding platform is a *lending-based* model (e.g., Prosper.com) in which entrepreneurs repay the borrowed money at a fixed interest rate. With over 70 percent market share, this peer-to-peer lending model has facilitated over $25 billion in loans (Massolution, 2015). The total amount of outstanding crowdfunding loans in the US alone was estimated to have grown from $118 million in 2005 to $647 million in 2009 (Barasinska, 2010). The lending-based crowdfunding platforms fall into two prominent types: commercial platforms (e.g., Prosper, Zopa, and Smava) in which backers expect returns in the form of interest; and prosocial platforms (e.g., Kiva) in which backers receive no interest for the loans they provide (Ashta & Assadi, 2009). The commercial platforms, in turn, differ in how they facilitate loans. For instance, while Propose auctions loans, Smava facilitates loans on a first-come-first-serve basis, and Zopa facilitates loans by matching borrowers and lenders (Barasinska, 2010). The commercial lending-based platforms, unlike donation- and reward-based crowdfunding platforms may attract professional investors with profit motives (Leboeuf & Schwienbacher, 2018).

The prosocial lending-based platforms, in contrast to commercial peer-to-peer lending platforms, are usually set up with the explicit purpose of alleviating poverty, and often work in partnership with organizations across countries. Such platforms enable prospective backers to provide relatively small amounts of uncollateralized loans at no or low interest to people looking to pursue a broad range of entrepreneurial opportunities (Allison et al., 2015). As compared to commercial platforms that are mostly limited to national markets due to local regulations, prosocial platforms operate globally (Bachmann et al., 2011). The prosocial platform, Kiva, for instance, has facilitated the disbursement of $1.17 billion in loans to 2.9 million borrowers across 85 countries (Kiva, 2019). Kiva is also unique in its approach to serving small entrepreneurs through a network of microfinance partner organizations across the world.

Prosocial crowdfunding platforms, arguably, have the potential to democratize both entrepreneurship as well as the financial capital for entrepreneurs (Mollick & Robb, 2016). As Coleman and Robb (2016) noted, although such platforms do not typically cater to high-growth firms, they play an important role by providing equitable access to low-cost debt capital to early-stage entrepreneurs that are eventually likely to emerge as growth-oriented firms. However, research on prosocial crowdfunding platforms is sparse (Berns, Figueroa-Armijos, da Motta Veiga, & Dunne, 2018). Much of research has focused on popular rewards-based crowdfunding platforms (e.g., Kickstarter), for-profit lending-based crowdfunding platforms (e.g., Prosper.com), and increasingly on equity-based crowdfunding platforms (e.g., Seedrs). The small set of studies on prosocial crowdfunding has primarily addressed the motives of lenders and factors that influence their decision-making (Galak, Deborah, & Andrew, 2011). Scholars have primarily drawn on elaboration likelihood model (Petty & Cacioppo, 1986), cognitive evaluation and self-determination theory (Deci & Ryan, 1985), and signaling theory (Stiglitz, 2002) to understand factors influencing fundraising success in lending-based prosocial crowdfunding platforms. Elaboration likelihood model suggests that persuasion occurs through two distinct routes – the central route which involves issue-relevant thinking; and the peripheral route which involves heuristics-based decisions. This model has provided a basis for understanding the persuasion processes activated by pitches. Cognitive evaluation theory and its extension self-determination theory explain how extrinsic rewards may undermine intrinsic motivation. These theories have been useful in understanding which kind of rhetorical framing used in pitches are likely to elicit a positive response from potential backers on crowdfunding. Signaling theory is concerned with describing behavior in the context of information asymmetry between two parties (Connelly et al., 2011). This perspective has been useful in understanding the various cues signaled through pitches, and the influence these signals have on the potential backers.

As scholars begin to further delve into the dynamics of prosocial crowdfunding, it might be timely and fruitful to take an emancipatory view of entrepreneurship (Rindova et al., 2009) for the following reasons. First, the core theoretical tenets of the emancipatory view, as I describe below, resonate with the objectives of online platforms based on a prosocial crowdfunding model, as well as with the motives of prosocial backers and the “hope for autonomy” drive of the entrepreneurs seeking funding on these platforms (p. 479). Second, as an important counterpoint to what constitutes an entrepreneurial activity, the emancipation perspective offers significant generative potential for an enriched and a more insightful understanding of various actors engaged in prosocial crowdfunding, the constraints that they are seeking to escape from (or help others escape from), nature of relationship they build in the process of advancing their endeavors, and approaches they use to rationalize their activities (Rindova et al., 2009).

In the following section, I briefly note some inadequacies of the mainstream theorizing that privileges a view of entrepreneurship as primarily an economic activity. I discuss the central tenets of recently proposed re-conceptualization of entrepreneuring as emancipation by Rindova and colleagues (2009), and argue the relevance of this perspective to examine the dynamics of entrepreneurial financing in the prosocial crowdfunding context. Next, I draw on sociology research to identify a typology of justifications that entrepreneurs may use in their crowdfunding pitches to establish legitimacy and value in the eyes of prosocial crowdfunding backers.

ENTREPRENEURSHIP AS EMANCIPATION

The dominant conceptions of entrepreneurship that presume a primacy of financial wealth creation in entrepreneurial pursuits are likely to limit our understanding of the dynamics of entrepreneurial financing in the crowdfunding context. A substantial body of work on women entrepreneurs and emerging research on social entrepreneurs have challenged this emphasis on economic gains within the convention theory. In a recent review of over 30 years of women's entrepreneurship research, Jennings and Brush (2013) documented studies suggesting that many women entrepreneurs pursue hybrid goals (both economic and noneconomic) and not all place a high value on financial success. They indicate that accumulated evidence reveals that the pursuit of "growth in sales, profits, and/or employees" is "not natural or inevitable but rather at least partially under the control of the owner" (p. 693). Studies on social entrepreneurship have similarly called attention to the observed subordination of economic goals in the practice of many entrepreneurs (Mair, Battilana, & Cardenas, 2012).

In sum, a theoretical perspective with emphasis on financial gains and economic wealth wholly ignores the diverse motives and activities of many practicing entrepreneurs, and does not account for the full spectrum of entrepreneurial dynamics. Several articles have called researchers to “interrogate this form of entrepreneurial*ism* for how it privileges certain forms of economic action, while implying other more collective forms of organization and exchange are somehow problematic” (Tedmanson, Verduyn, Essers, & Gartner, 2012: 532; italics in original). Such questioning of the common assumptions in the dominant imagery of entrepreneurship, as Jennings and Brush (2013) argue, shifts scholarly attention to empirically analyzing performance on non-economic indicators and conceptualizing explanatory models for entrepreneurial success on hybrid goals. Consistent with this growing critical voice, I propose that in our quest to understand entrepreneurial financing - especially in the emerging context of newer forms of funding with the potential to democratize access to entrepreneurial capital - it would be helpful to move away from a theoretical focus on entrepreneurship as a means of wealth creation. Towards this end, I aim to draw on the broadened emancipatory view of entrepreneurship.

In an introductory article to the special topic forum, Rindova et al. (2009) re-framed entrepreneurship as “efforts to bring about new economic, social, institutional, and cultural environments through the actions of an individual or group of individuals” (p. 477). Critiquing the inadequacies of the dominant focus of entrepreneurship researchers on “wealth creation via new ventures” (p. 476) and re-conceptualizing “entrepreneuring” as encompassing a “wide variety of change-oriented activities and projects” (p. 477), they identified issues that have been finessed in scholarly works. In their perspective, entrepreneuring involves emancipatory efforts of individuals (or group of individuals) to “disrupt the status quo and change their position in the social order in which they are embedded – and on occasion, the social order itself” through creation of “something new – a new idea, a new thing, a new institution, a new market, a new set of possibilities for the entrepreneuring individual or group and/or other actors in the environment" (p. 478). Such a perspective, they argued, better accounts for "the entrepreneuring that is all around us and its emancipatory potential" (p. 490).

Scholars indeed concur that the entrepreneurship-as-emancipation view has the potential to identify and draw focus towards hitherto under-researched areas and marginalized activities. Characterizing the Rindova et al.'s (2009) article as "a groundbreaking paper" (p. 81) that is both "provocative and timely" (p. 82), Jennings, Jennings, and Sharifian (2016) suggested that this emancipatory perspective is necessary to develop a deeper understanding of entrepreneurial behaviors in the context of both developing and developed economies. They demonstrated the potential of entrepreneurship-as-emancipation view for understanding the gender differences in entrepreneurs deviating from established practices in developed regions. Similarly, Mair and colleagues (2012) illustrate the importance of the emancipatory potential to account for the heterogeneity of organizing in the practice of social entrepreneurship.

Contextualized to the focal questions of this dissertation, the entrepreneurship as emancipatory perspective is particularly useful for two reasons. First, it offers a promising lens to understand "the entrepreneuring that occurs in contexts not traditionally considered within the domain of entrepreneurship, including the activities of explorers, scientists, artists, freelancers, and social cooperatives, as well as the many small-scale initiatives through which individuals and groups seek to change their worlds" (Rindova et al., 2009: 489). Much of the emerging body of entrepreneurship research examining funding decision-making in the crowdfunding context still adopts a lens that places primacy on entrepreneurship as an economic activity. However, as Greenberg and Mollick (2017: 364) showed, crowdfunding platforms are avenues for individuals to be the "agents of change" addressing social inequalities. Evidence shows that individuals seeking crowdfunding are involved in a broader set of entrepreneurial actions than what is conceptualized in the mainstream entrepreneurship research and that backers participating on crowdfunding platforms do so to satisfy diverse (and often hybrid) motives ranging from financial gains to altruism (e.g., Allison et al., 2015; Berns et al., 2018; Cholakova & Clarysse, 2015; Jancenelle, Javalgi, & Cavusgil, 2018). Taking an emancipatory perspective that sees entrepreneuring as "change-creating efforts through which individuals or groups seek to break free from (and potentially break up) existing constraints within their economic, social, technological, cultural, and/or institutional environments" (Jennings et al., 2016: 81), allows researchers to account for these phenomena as well as identify otherwise invisible entrepreneurial dynamics in the crowdfunding context. A reframing of "entrepreneurship as an economic activity with possible social change activity to entrepreneurship as a social change activity with a variety of possible outcomes," as Calas and colleagues (2009) argued, has theoretical, methodological, and analytical implications.

Second, the entrepreneurship as emancipation perspective's emphasis on making declarations through rhetorical acts helps bring "the analyst's attention not simply to the sex of participants as embodied actors but to the cultural production of their subjectivities" (Calas et al., 2009: 555). In essence, this perspective foregrounds the variations in entrepreneurs' positioning of their autonomy-seeking projects in a "system of exchange relationships with resource holders" and in the "webs of meanings within which stakeholders interpret the value of products and activities" (Rindova et al., 2009: 485). By drawing focus towards not just differences between women and men entrepreneurs, but heterogeneity within gender in their legitimation and justification strategies on a crowdfunding platform, there is potential for greater insights to emerge on the observed gender dynamics in the crowdfunding context.

TYPOLOGY OF JUSTIFICATIONS

The efforts to raise financial capital through crowdfunding platforms involve a process by which entrepreneurs take stock of their resource needs and construct a pitch that appeals to potential backers. As noted earlier, the wide heterogeneity in the motivations that drive potential backers to extend support to crowdfunding projects (Mollick, 2014) makes the process of creating a persuasive appeal particularly challenging for entrepreneurs. Despite a significant body of research on entrepreneurship, scholars have not yet adequately addressed the question of how entrepreneurs can come to effectively justify their asking for financial capital (Cornelissen & Clarke, 2010). Although some research on crowdfunding in entrepreneurship and allied fields have recently examined the influence of various rhetorical, linguistic, and symbolic characteristics of entrepreneurial pitch on potential backers (e.g., Allison et al., 2015; Greenberg & Mollick, 2017; Moss et al., 2018), the question of what different types of justification are available for entrepreneurs and how each of these justification types relate to crowdfunding success depending on the entrepreneurs' social position remains to be examined.

Several scholarly works potentially offer a basis to understand pluralistic forms of rationality, distinct content of legitimacy judgments, multiple principles of evaluation, and various modes of justification. Of these, two conceptual frameworks most relevant and useful to examine the multiple grounds for public justification of legitimacy and worth in entrepreneurial settings include Friedland and Alford's (1991) *institutional logics* and Boltanski and Thévenot's (2006) *orders of worth* framework (Cloutier & Langley, 2007, 2013; Gond, Leca, & Cloutier, 2015; Lamont & Thévenot, 2000)[1]. Friedland and Alford (1991) point to "multiplicity of value

[1] Another prominent work that suggests distinct types of justifications is Weber's (1978)

spheres, each associated with a distinctive 'institutional logic'" (Scott, 2014: 90). Defining institutional logics as "a set of material practices and symbolic constructions which constitutes its organizing principles and which is available to organizations and individuals to elaborate," they highlight how beliefs and assumptions about rationale and legitimate action can be differentiated around specific societal subsystems such as politics, religion, and market (Friedland & Alford, 1991: 248). Similarly, identifying six major types of institutional logics (family, religion, state, market, profession, and corporation), Thornton, Ocasio, and Lounsbury (2012: 10) emphasize

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conception of four types of rationality (Dyck, 1997; Kalberg, 1980, 2012; Rindova & Martins, 2017). Whereas *practical rationality* refers to making decisions based on individual's self-interests or pragmatic grounds, *formal rationality* entails means-end calculation based on universally applied bureaucratic rules. *Value-based rationality* refers to certain cultural value system informing actions. *Theoretical rationality* refers to such cognitive templates as inductions, deductions, and causal attributions informing the intellectual grasping of reality and actions. This typology of rationality has been useful in understanding justification processes in modern societies (Kalberg, 2012). However, the typology has not been uniformly interpreted (Cloutier & Langley, 2007) and does not clarify why some criteria are more legitimate than others (Lamont & Thévenot, 2000).

A pluralistic basis for action is also suggested in Walzer's (1983) spheres of justice which describes how the bases of justifiable actions are "not to be found in an objective, universal Archimedean point," but "within the boundaries of a political community" - a "world of shared understandings," which "presupposes the existence of other worlds with other shared understandings" (Trappenburg, 2000: 344). The limitation of Walzer's perspective is that it associates each rationality with specific communities and institutions (Dauenhauer, 1998; Lamont & Thévenot, 2000).

Similarly, examining the allocation of "scarce goods and necessary burdens" in such critical areas as education, health, and work by relatively autonomous institutions, Elster (1991: 273, 1992) empirically showed how the principles underlying justifiable action are "local." For Elster, the principles which inform allocative practices differ substantially across spheres, across countries within a given sphere, and even within a given sphere within a given country (1991).

Further, Cloutier and Langley (2007) point to a stream of research on framing inspired by works of Goffman (1974) that also emphasizes pluralism in rationalities. The framing perspective does not impose a typology, but instead suggests that the bases of justification are the "'political resultant' of 'pulling and hauling' (Allison, 1971) among competing interests and visions of appropriate" actions (Creed, Langstraat, & Scully, 2002; Denis, Langley, & Rouleau, 2007: 182).

“how action depends on how individuals and organizations are situated within and influenced by the spheres of different institutional orders, each of which presents a unique view of rationality.” In essence, for institutional theorists, legitimation and justification modes are relative to how social actors are situated.

Unlike the institutional logics perspective, the orders-of-worth framework proposed by Boltanski and Thévenot (2006) considers the different forms of rationalities that are mobilized to coordinate actions as neither specific to institutional spheres nor “relative to people, as cultural values are, but adjusted to the situation encountered” (Thévenot, 2002: 182-183). For these French scholars, and more generally, for the conventions school, the economic coordination of actions under uncertainty is highly problematic as preferences cannot be ranked and interpretations are ambiguous in such situations (Biggart & Beamish, 2003). The primary objective of the orders-of-worth perspective is to understand what constitutes a ‘justifiable action.’ For Boltanski and Thévenot (2006), the process of justification based on conventions is crucial to render a situation as reasonable and accountable. Drawing on empirical analysis of disputes and critiques, and on classical works in political philosophy, these scholars distinguished six alternative grammars of justification (termed as ‘orders of worth’) that social actors can legitimately draw on to coordinate actions under uncertainty: “‘market’ performance; ‘industrial’ efficiency based on technical competence and long-term planning; ‘civic’ equality and solidarity; ‘domestic’ and traditional trustworthiness entrenched in local and personal ties; ‘inspiration’ expressed in creativity, emotion, or religious grace; and ‘renown’ based on public opinion and fame” (Lamont & Thévenot, 2000: 5).

Of the two frameworks for analyzing justifications, the orders-of-worth framework is best suited to capture the heterogeneity and complexity of the imperative of justification underlying entrepreneurial actions of seeking finance for the following reasons. First, the orders-of-worth framework provides the most exhaustive list of possible foundations of justifications (Cloutier & Langley, 2007; Gautier, 2007). Second, the orders-of-worth perspective, while granting greater agency to entrepreneurs as social actors, also draws attention to their critical, moral, and reflexive capacities that help them understand the forms of evaluation and rationality operational in a resource exchange context, and to successfully mobilize the types of justification that align with resource holders' expectations (Boltanski, 2012; Susen & Turner, 2014). Third while the orders-of-worth conceptual toolbox's limited set of empirical archetypes of rationality and justification denies the "formal universalism" characteristic of mainstream economic models, it also refrains from the "unlimited pluralism" which is often the kind of response by research strategy taking an institutional theory lens (Boltanski & Thévenot, 1999: 365). Fourth, unlike institutional theory and other frameworks that draw on Weberian notions, the orders-of-worth framework, with its rich descriptive language for identifying and delimiting pluralism, enables a micro-level and nuanced perspective of the multiple justifications (Annisette & Richardson, 2011; Cloutier & Langley, 2007; Levy, 2002; Thévenot, 2002).

An emerging body of studies has demonstrated the usefulness of Boltanski and Thévenot's (2006) justifications framework for studying organizations and institutions. One key theme in the research utilizing the justification framework is an analysis of situations involving competing bases of legitimate worth. For instance, Cloutier (2009) applied the justification framework to investigate conflicting pressures and expectations imposed on nonprofits arising from divergent conceptions of value. She finds that while market and industrial justification modes formed the bases of funders' judgments, the inspirational mode was the primary driver of actions of nonprofit organizations seeking funding. The study identifies three distinct ways (buy-in, compromise, and fall-out) in which collaboration partners managed and reconciled these fundamental differences.

Closely related, several studies have built on insights from Boltanski and Thévenot's (2006) work to explore how organizations and stakeholders involved in situations of conflicts and controversies establish, maintain, and contest legitimacy. For instance, Ramirez (2013) drew on the framework to empirically analyze the injustice perceived by members of a large professional body of auditors in the UK after it introduced a significant institutional change by setting up a unit for quality monitoring and control. Gond, Barin Cruz, Raufflet, and Charron (2016) used the framework to understand how stakeholders mobilized power and different types of justification for calling a moratorium on a controversial shale gas exploration in Canada on moral grounds. Similarly, Patriotta, Gond, and Schultz (2011) used the typology to unpack how various stakeholders implicated in a major nuclear accident made sense of the ensuing controversies, justified their positions, sought compromise, and maintained the legitimacy of relevant institutions. In another organizational study, Reinecke (2010) used the justification framework to illustrate how various representatives contested on political and moral grounds to set Fairtrade minimum price for coffee. Accounting research has similarly illuminated how the framework provides useful insights to understand the confrontations that arise, for example, in fair value accounting and triple bottom line accounting practices (Annisette & Richardson, 2011), and multiple ways stable compromise are achieved (Annisette, Vesty, & Amslem, 2017).

Another central theme in the organizational and management research inspired by the justification framework is the implications for strategies. In one of the early articles, Denis, Langley, and Rouleau (2007) recognized how the insights from this framework inform our understanding of how managers influence organizational action in pluralistic contexts of universities, hospitals, cooperatives, and other hybrid organizations. They note that the framework is useful for empirical investigation of how managers construct strategies, gain legitimacy, and draw support in organizational contexts with divergent value systems. Similarly, Richards, Zellweger, and Gond (2017) draw on the justification framework to understand how heterogeneity in firms' strategic adoption of recognized standards relates to the distinct ways the firms tend to manage their moral legitimacy, i.e., legitimacy based on normative evaluations by stakeholders (Suchman, 1995). They empirically illustrate how firms that primarily rely on civic justifications are more likely to invest in sustainability certifications than firms that emphasize tradition and relational orientation through domestic justifications.

Relatedly, researchers have acknowledged the relevance of the justification framework for studying organizational change (see Jagd, 2011 for review). In an empirical study of the reform of doctoral training in France, Dahan (2015) draws on the framework to identify justifications mobilized in support or rejection of the reform. The study highlights how different modes of justification function as an endogenous source of change. Along similar lines, Whelan and Gond (2017) proposed that organizations can advance a radical change through 'justification work' that seeks to create an alignment between different higher-order principles. They illustrated how an animal rights organization that primarily relied on civic justifications aligned their critique with industrial justifications as well for promoting radical social change.

Several works under the disciplinary banner of the sociology of valuation and evaluation have also built on Boltanski and Thévenot's (2006) analytical categories to document criteria of evaluation salient in different cultural contexts (Lamont, 2012). Drawing on eight case studies, Lamont and Thévenot (2000) note several similarities and differences in the cultural repertoire of evaluation in France and the US. They find that across a wide range of situations market-based assessments are more common in the US, whereas evaluations in France are more commonly based on civic criteria of solidarity. For instance, literary works are more frequently evaluated based on their market demand in the US (Weber, 2000). In contrast, artworks are less regularly judged based on their market performance in France (Heinich, 2000). Arguments during environmental disputes are generally based on fame logic, market rationale, and civic principles of equality in the US, and domestic traditions and local attachments in France (Thévenot, Moody, & Lafaye, 2000).

Taken together, the above noted and several other studies (e.g., Beamish & Biggart, 2017; Hanrieder, 2016; Lindberg & Mossberg, 2019; Mailhot & Langley, 2017; Nyberg & Wright, 2012; see also Cloutier, Gond, & Leca, 2017; Jagd, 2011) have demonstrated how Boltanski and Thévenot (2006) framework helps account for multiple justifications, articulations, and interpretations provided for what is of value or worth, and various accounts for what is considered legitimate. It offers a conceptual tool and language to analyze a variety of phenomena related to organizational life. However, the framework's potential to advance our understanding of entrepreneurship is yet mostly untapped.

In the following chapters, I draw on the orders-of-worth framework to examine how entrepreneurs seeking finance may distinctly position their projects. Contextualizing the justification typology to crowdfunding context, I examine in Study 1 how the six types of justification although available to all entrepreneurs to establish legitimacy and worth, may not be equally salient to them. Specifically, I propose how gender affects the use of six justifications outlined by Boltanski and Thévenot (2006).

Next, in Study 2, I draw on entrepreneurship as emancipatory perspective to examine the relative effectiveness of the various types of justification in prosocial crowdfunding context. In the Rindova et al.'s (2009: 485) re-conceptualization of entrepreneurship as change-oriented projects, successful mobilization of stakeholder support rests not on symbolically positioning the initiatives as fitting with "familiar and valued accounts," but on discursive and rhetorical acts that spotlight entrepreneurs' "intentions to create change." The orders-of-worth framework suggests various ways in which social actors can make such declarations about intended change. Drawing on the importance of underscoring change-orientation, I propose the relative effectiveness of different justifications. I argue that, overall, inspired, market, and civic justifications, which are inherently emancipatory in nature will positively affect success in prosocial crowdfunding contexts. In contrast, I argue that domestic, civic, and industrial justifications will negatively affect crowdfunding outcomes as they emphasize status quo. Further, drawing on gender role theories, I develop hypotheses about how the effectiveness of these three emancipatory justifications varies by the entrepreneur gender.

Lastly, in Study 3, integrating research on gender differences in prosociality, investor behavior, and information processing, I address how women and men prosocial investors are differently drawn to specific justifications used in crowdfunding pitches.

Chapter 4: Study 1 - Entrepreneur's Gender and Justifications Use

The typical process of raising funds for entrepreneurial purposes on crowdfunding platforms involves entrepreneurs posting details about their venture, providing a background of them and their team, specifying the amount requested, stating what, if any, investors can expect to receive in return for their backing, and developing a narrative to mobilize financial support. There are ample reasons to anticipate individual differences in the nature of crowdfunding pitch that entrepreneurs make. The objective of this chapter is to develop specific hypotheses about gender effect on the entrepreneurs' use of different justifications in their crowdfunding pitches.

Although such an investigation of individual differences in symbolic actions of entrepreneurs is of considerable value, very few studies have, to the best of my knowledge, theoretically elaborated and empirically investigated the nature of gender effects. However, the cultural entrepreneurship perspective which contends that extant stocks of entrepreneurs' resource capital (Lounsbury & Glynn, 2001), and their prior experience and motivations (Cornelissen & Clarke, 2010) shape the content of cultural resources and symbolic language entrepreneurs use hints at the effect socio-demographics may have on the use of symbolic actions. In fact, prior empirical research has found, for instance, that women are more likely to use language high on positive emotions, vividness, and inclusion, and less likely to use references to monetary terms in their crowdfunding pitches (Gorbatai & Nelson, 2015).

Below, drawing on a long tradition of research that has pointed to striking gender differences in preferences, values, and language use, I posit a baseline expectation that women and men entrepreneurs are likely to differ in the types of justification they tend to rely on in their crowdfunding pitches. First, I present a brief overview of two vibrant streams of existing literature that are most relevant to predicting gender differences in the use of specific justifications. I then formulate hypotheses regarding gender differences in the likelihood of using the six justification types.

GENDER DIFFERENCES IN VALUES, ATTITUDES, AND BEHAVIORS

Social-psychology on Gender Differences

Psychologists taking a social structural perspective have long maintained that sex differences observed across social contexts can be attributed to the distribution and concentration of women into distinct social roles (Eagly & Wood, 1999). They posit that as women and men occupy different roles in society, expectations about typical and desirable attributes emerge over time for each sex. These shared descriptive and prescriptive beliefs about men and women, termed *gender roles* (Eagly, 1987), are the basis of sex-differentiated tendencies. Gender roles shape social and psychological processes by becoming embedded in both others' expectations as well as within one's self-concept (Wood & Eagly, 2009). Furthermore, as Wood and Eagly (2002) postulate in their biosocial theory, these gender stereotypic expectations and gender identities interact with biological differences between men and women in physical strength and size, and biological processes of hormonal changes to affect sex differences and similarities.

A substantial body of research has drawn on the social structural account of gender roles and interrelated theories of gender stereotypes (Deaux, 1985; Deaux & Lewis, 1984; Eagly & Mladinic, 1989; Eagly & Steffen, 1984), gender socialization (Stockard, 2006), gender schema (Bem, 1981), and role congruity (Eagly & Diekman, 2004) to illuminate differences between men and women on values, attitudes, and behaviors. For instance, in a cross-cultural study, Schwartz and Rubel (2005) found that men value power and achievement more than do women. In contrast, women placed more importance on values of benevolence and universalism. A subsequent study found that these gender differences in values were more substantial in cultures characterized by greater gender equality as such contexts encourage both genders to more freely pursue their values of importance (Schwartz & Rubel-Lifschitz, 2009). In terms of moral reasoning, Gilligan (1982) suggested that while women are more concerned with empathy and care, men are more concerned with rights. Evidence suggests that women tend to place greater importance than men on moral values of caring, nurturing, and protecting the vulnerable (Jonason, Strosser, Kroll, Duineveld, & Baruffi, 2015). Equity concerns are generally more salient to men, whereas equality considerations are more salient to women (Brockner & Adsit, 1986). Findings also reveal that attitude towards risk was more favorable, in general, among men than women (Byrnes et al., 1999; Eckel & Grossman, 2008), and more specifically, among individuals who more strongly identify with masculine gender (Meier-Pesti & Penz, 2008). Overall, the various gender differences observed across culture are mostly consistent with Bakan’s (1966) distinction of *agentic* men and *communal* women (Feather, 1987).

Prior research in organizational studies has also illustrated the pervasive effects of gender roles and stereotypes. For example, investigating gender differences preferences for job characteristics, Brenner and Tomkiewicz (1979) found that men place greater importance than women on opportunities for taking a risk. In terms of career interests, research finds that men are keener than women in pursuing status goals and male-stereotypic careers, such as finance, law, and politics, whereas women are more interested than men in pursuing caregiving goals and female-stereotypic careers, such as nurse, teacher, and social worker (Evans & Diekman, 2009). Similarly, in a study exploring gender differences in preferences for career satisfiers, Eddleston, Veiga, and Powell (2006) reported evidence suggesting that male managers valued status attainment, whereas socioemotional satisfiers, such as interpersonal relationships, were more important for female managers. An earlier study by Betz, O'Connell, and Shepard (1989) also showed that women are more concerned with social relationships and helping people, whereas men are more interested in money and advancement. Additionally, they showed men's greater willingness than women to engage in less ethical behavior. Besides confirming women's greater emphasis on interpersonal relationships, Konrad, Ritchie, Lieb, and Corrigall's (2000) meta-analytic study also indicates that women prefer intrinsically rewarding work more than do men. Similarly, research suggests that their lower power motivation can explain the lower representation of women in leadership positions as compared to men (Schuh et al., 2014). Consistent with gender role theory, masculinity has been shown to influence both self and others' perceptions of leadership emergence (Kent & Moss, 1994). Furthermore, leadership research suggests that aspects of leadership styles (e.g., democratic vs. autocratic style) tend to align with gender stereotypes (e.g., Eagly & Johannesen-Schmidt, 2001; Statham, 1987; Wirth, 2001; see Eagly & Johnson, 1990 for meta-analysis). Women CEOs are less likely than men CEOs to engage in potentially risky strategies (Jeong & Harrison, 2017).

Entrepreneurship scholars have similarly demonstrated how gender roles are implicated in the new venture creation process. Consistent with gender roles and stereotypes, findings reveal, for example, that women entrepreneurs place a greater emphasis on flexibility, work-life balance, employee relationships, and contributions to society, and lesser importance on status attainment, career advancement, and wealth creation than do male entrepreneurs (Buttner & Moore, 1997; DeMartino & Barbato, 2003; Eddleston & Powell, 2008). Gender roles shape perceptions of barriers and intentions to pursue entrepreneurship (Shinnar, Giacomin, & Janssen, 2012). Individuals who identify with female gender have lower intentions of starting a venture (Alonso-

Galicia, Fernández-Pérez, Rodríguez-Ariza, & Fuentes-Fuentes, 2015; Gupta, Turban, Wasti, & Sikdar, 2009; Greene, Han, & Marlow, 2013; Thebaud, 2010) and differ in their attitudes towards growth (Cliff, 1998; Davis & Shaver, 2012) than male gender. Evidence suggests that gender stereotype activation influences the evaluation of new business opportunities (Gupta, Turban, & Pareek, 2013). Furthermore, Bird and Brush (2002) postulated the implications of masculinity and femininity on several new venture attributes, including resource use, structure, control, systems, policies, and culture. They suggested that gender affects entrepreneurship process by shaping founders' conceptions of reality, orientations towards time, actions and interactions, power motives, and ethical tendencies.

Although several studies suggest that in specific contexts, women are more similar to men in values than different (e.g., Shann, 1983; Lyons, Duxbury, & Higgins, 2005; Pryor, 1983), substantial evidence noted above and within other reviews (e.g., Konrad et al., 2000) suggest that values, attitudes, and behaviors of men and women in the broader population tend to be consistent with gender roles and stereotypes. Drawing from this prior work, I conjecture that gender roles provide a framework for understanding gender differences in the justifications that women and men entrepreneurs use in their crowdfunding pitches.

Socio-linguistics on Gender Differences

The accumulated evidence in a rich literature on gender differences in the use of language also suggests a link between gender and the use of justifications. In fact, some researchers emphasize the gender effect by drawing on the notion of "women's language" (Lakoff, 1973: 50). Research finds, for example, that women drew on "the female register" - comprising of specific lexicons, adjectives devoid of power, question intonations, modifiers or hedges, and hyper-correctness - more often than do men (Crosby & Nyquist, 1977: 314). In support of the assertion that men and women constitute different "sociolinguistic subcultures" (Maltz & Borker, 1983: 199), women's language is generally perceived as more indirect, elaborate, and affective, whereas direct, personal, succinct, and instrumental are seen as characteristics of men's language (Mulac, Bradac, & Gibbons, 2006). Although some studies find little support for systematic genders differences in language use (e.g., Simkins-Bullock & Wildman, 1991) and yet others find small average size effects of gender (see Leaper & Ayres, 2007 for meta-analytic evidence), it is acknowledged that men and women's language differ on several dimensions (see Pennebaker, Mehl, & Niederhoffer, 2003 for a review).

Two major explanations offered to account for these gender differences in language use are social power and socialization. Scholars taking the former perspective assert that women's lower power and status in society relative to men result in differences in the extent of, for example, deference and dominance manifested in their use of language during social interactions (Fishman, 1997; Henley & Kramarae, 2001; Lakoff, 1973; West & Zimmerman, 1977). The alternative sociocultural explanation posits that the differences in men's and women's language behaviors are a byproduct of differences in their "sociolinguistic socialization" during childhood (Maltz & Borker, 1983: 214). This perspective suggests men and women have "learned to do different things with words" (Maltz & Borker, 1983: 214). In their review of research, Pennebaker and colleagues (2003) suggest that most studies relate the differences in use of several linguistic dimensions to women's and men's differential access to social power, with only some researchers (e.g., Maccoby, 1990) acknowledging that gender differences may result from differential socialization environments. Leaper and Ayres' (2007) meta-analysis finds support for both the socialization and social power accounts of men's and women's language use, but not for a third perspective that links language use to biological factors. Others have suggested that although the "gender-as power" and "gender-as-culture" accounts for linguistic differences emphasize different aspects, they are often aligned with each other (Mulac et al., 2006: 124).

Applying these robust findings from research on gender roles and sociolinguistics, I predict that entrepreneurs seeking to raise financial capital are likely to employ justifications that are congruent with broader gender roles. Specifically, I expect that women, more than men, will use inspired, domestic, and civic justifications, and that men entrepreneurs, more than women entrepreneurs, will use fame, market, and industrial justifications.

ENTREPRENEURIAL JUSTIFICATIONS

The theory of orders-of-worth (Boltanski & Thévenot, 2006) suggests that one key category of justification that entrepreneurs can use to promote a positive evaluation of their crowdfunding pitches involves establishing worth based on creativity, passion, and emotion. The pitches in such a mode of justification, termed *inspired justification*, are primarily emotionally evocative in nature. A second distinct category of justification that entrepreneurs may strategically use to appeal to potential backers on crowdfunding platforms is based on esteem and reputation. Justifications of this type, termed *domestic justifications*, relies primarily on presenting a virtuous self to enhance perceived trustworthiness and credibility in the eyes of the target. In this form of justification, entrepreneurs emphasize traditions, hierarchies, local attachments and identities, relational orientation, and personal ties. *Civic justification*, the third category of justification, is based on collective welfare. Entrepreneurial pitches using such a justification highlight how the proposed project contributes to the goals of establishing equality and solidarity. Another category of justification that entrepreneurs may use in their crowdfunding pitches involves establishing worth based on public opinion and renown. The proofs that entrepreneurs present in support of this justification, termed fame justification, include popularity and the extent of audience recognition. A more obvious and common type of justification used by entrepreneurs on crowdfunding platforms involves establishing worth based on the economic value in competitive markets. The proofs that support this type of justification – termed *market justification* - are monetary in nature. Entrepreneurs pitching with market justification attempt to appeal to potential backers by including references to price, cost, saleability, and profits. The sixth class of justification that entrepreneurs use in their crowdfunding pitches is based on technical efficiency. The relevant pieces of information that entrepreneurs draw attention to in such a type of justification, termed *industrial justification*, include their professional expertise, quantitative evidence of performance, and organized systems of work.

Inspired Justifications

Crowdfunding pitches using inspired justifications foreground entrepreneurs' passion for creating something new, unique, and original (see Table 1 for a sample pitch). Such justifications intend to induce in the potential investors' mind an image of "singularity or creativity of a person, object, or action which is the source of inspiration" (Thévenot et al., 2000: 252). Accumulated evidence on gender stereotypical association of men with creative pursuits (e.g., Baer & Kaufman, 2008; Barron & Harrington, 1981; Broyles & Grow, 2008; Forisha, 1978; Henry, 2009; Hmieleski & Sheppard, 2018; Karwowski, 201; Karwowski, Lebuda, Wisniewska, & Gralewski, 2013; Kaufman, 2006; Mallia, 2009; Piirto, 1991; Morais, Almeida, Morais, & Almeida, 2019; Proudfoot, Kay, & Koval, 2015; Ruth & Birren, 1985; Stankiewicz, 1982) as well as risk-taking (see Byrnes et al. 1999; Croson & Gneezy, 2009 for reviews) suggest that inspired justifications will be more characteristic of entrepreneurial pitches of men than women.

However, greater importance women place on intrinsically rewarding aspects of work suggest a competing viewpoint. Women more than men emphasize intrinsic job attributes, including creativeness, task enjoyment, and opportunities for self-fulfillment (Auster, 1978; Konrad et al., 2000). Relative to men, women also hold a stronger artistic self-concept, tending to evaluate one's worth and abilities in terms of accomplishments in creative domains (Marsh, Trautwein, Ludtke, Koller, & Baumert, 2006). A desire for challenge and opportunities for self-determination are primary motivations that women report for engaging in entrepreneurship (Buttner & Moore, 1997; Kirkwood, 2009). From these findings, it follows that women entrepreneurs may be more likely to draw on inspired justifications "asserting their own uniqueness" (Boltanski and Thévenot, 2006: 161).

Furthermore, the centrality of "emotional states" to inspired justification (Boltanski and Thévenot, 2006: 238), combined with gender stereotypical identification of affect with women (Kite, Deaux, & Haines, 2008), provides a basis to understand gender differences in the use of such justifications. Inspired justifications are "manifested by *feelings* and *passions*" (p. 159; italics in original). The "outpouring of inspiration" may come as either "*devouring...enriching, exciting, exalting, fascinating*" or "*devouring* [and] *disturbing*" in the entrepreneurs' verbalizations of their experience and value propositions (p. 159; italics in original). In the inspired mode, one does not shy away from expressing either "*anxiety* or *doubt*," or "love for the object pursued" (p. 160: italics in original). The notion that men are, in general, less emotional in their language use than women (Mulac et al., 2006; Pennebaker et al., 2003) suggests that the vocabulary of inspired justifications is likely to be found to a lesser extent in their entrepreneurial pitches. Women tend to be more expressive of such positive emotions as love and joy (Barbara, 2008; Mehl & Pennebaker, 2003; Newman, Groom, Handelman, & Pennebaker, 2008), as well as negative emotions related to anxiety (Newman et al., 2008; Shields, 2002). Applying these robust findings, I conjecture that women entrepreneurs are more likely than men entrepreneurs to use inspired justification in which evidence of worthiness "takes the form of an affective state" (Boltanski & Thévenot, 2006: 163). More formally, I propose the following:

Hypothesis 1.1. Women entrepreneurs are more likely than men entrepreneurs to use inspired justification in their crowdfunding pitches.

Domestic Justifications

At the core, domestic justifications implicitly or explicitly emphasize deference to and goals of preserving traditions, customs, and hierarchy (see Table 1 for a sample pitch). As Boltanski and Thévenot (2006) describe, legitimacy and worth in the domestic world depends on being "part of a *hierarchy*" and "rooted in *tradition*" (p. 165; italics in original). Crowdfunding pitches using domestic justifications establish legitimacy by signaling conformity to "*sacrosanct principles* or *norms*" (p. 237; italics in original). Domestic justifications establish worth through such "verbal precautions" as "forms of address, marks of respect, [and] *polite formulas*" (p. 238; italics in original). In essence, individuals using domestic justifications situate themselves "within the continuity of time" (p. 237). Below, drawing on research on the differential emphasis men and women place on respecting traditions and "domestic *authority*" (p. 253; italics in original), I conjecture gender differences in the entrepreneurs' use of domestic justifications.

Domestic justifications emphasize being rooted in and preserving traditions. Although some studies find that there are no gender differences in priorities ascribed to traditions (Schwartz & Rubel-Lifschitz, 2009), there are reasons to suggest that women emphasize traditions more than do men. Schwartz and Rubel (2005) found that across cultures women valued respecting and maintaining traditions somewhat more than did men. While this difference was not statistically significant, they found a meaningful association of gender with a related value benevolence. The evidence suggests that women are more concerned than men about preserving the welfare of the people they have personal ties with. This is consistent with the communal gender stereotype that describes women as nurturing, sensitive to others' needs, and relationship-oriented (Abele, 2003; Gilligan, 1982; Riger & Galligan, 1980; Rose & Rudolph, 2006). This tendency of women more than men to value "affiliation, attachment, and relationships as highly or more highly than self-enhancement" (Fondas, 1997: 268) suggests that women are more likely than men to use domestic justifications that emphasize worth based on tradition and personal attachments (Thévenot et al., 2000). This postulated difference is consistent with prior research on gender differences in people's possession of favorite objects. As Wallendorf and Arnould (1988: 539) find in their cross-cultural study, women more often select objects that depict their family (e.g., photos) or "tie them to previous generations" than do men. Further supporting this assertion is the notion that women tend to use language "to form and maintain connections with others (i.e., affiliation)" (Leaper & Ayres, 2007: 328).

Besides valuing traditions, some evidence suggests that women place greater importance than men on being deferential to authority (Jonason et al., 2015). Indeed, such acquiescence is a source of legitimacy in the domestic world (Richards et al., 2017). Relatedly, women's language use is also characterized by a high degree of *politeness* (Lakoff, 1973) - an attribute that is proof of worth in the domestic world. Thus, I expect women to be more likely to use domestic justifications that emphasize "*hierarchy*, the natural harmony of the world that is expressed by social *conventions, customs,* or *principles*" (Boltanski & Thévenot, 2006: 174-175; italics in original). More formally stated, I propose the following:

Hypothesis 1.2. Women entrepreneurs are more likely than men entrepreneurs to use domestic justification in their crowdfunding pitches.

Civic Justifications

At the core of civic justifications, as Boltanski and Thévenot (2006) elaborate, is an emphasis on addressing "problems *common* to *all*" by mobilizing "*collective action*" (p. 186; italics in original). Individuals using civic justifications aim to establish legitimacy and worth by "sacrificing particular and immediate interests, by transcending *oneself*, by refusing to place '*individual interests* ahead of *collective interests*'" (p. 190; italics in original). Entrepreneurial pitches using civic justifications emphasize advancing the goals of equality and achieving solidarity (see Table 1 for a sample pitch). Below, drawing on research on the differential preferences and behavioral tendencies of men and women towards collective welfare, I conjecture gender differences in the entrepreneurs' use of civic justifications.

Much of the gender role beliefs about women are captured in the Bakan's (1966) communal dimension. Women tend to be more prosocial (Rose & Rudolph, 2006) and more concerned than men about others' welfare (Eagly & Wood, 2012). In support of women's more selfless orientation and men's more selfish tendencies, experimental evidence in economics, for example, finds that women donate twice as much as do men to anonymous partners (Eckel & Grossman, 1998). A cross-cultural study by Schwartz and Rubel (2005; see also Schwartz & Rubel-Lifschitz, 2009) also converges on the same conclusion. The authors find that women valued both benevolence and universalism more than did men. Women attributed more importance than men to not only protecting the welfare of people they had personal contact with, but also to enhancing the collective welfare of all people. Further, Eagly, Diekman, Johannesen-Schmidt, and Koenig (2004) found that women, more than men, supported socio-political policies that advocated equal rights. Drawing on gender role hypothesis, the authors suggested that women's socially compassionate attitude and ideological commitment to social equality arise from their domestic responsibilities as well as from their own status disadvantages. From these robust findings, I expect greater tendencies among women entrepreneurs to use civic justifications than men entrepreneurs. More formally, I predict the following:

Hypothesis 1.3. Women entrepreneurs are more likely than men entrepreneurs to use civic justification in their crowdfunding pitches.

Fame Justifications

Fame justifications, as Boltanski and Thévenot (2006: 178) explain, aim to establish and legitimacy solely through "the world of public opinion." Such justifications come out as rather obvious attempts to *"persuade*" through fame and *"gain a following (fans)* or *a reputation*" (p. 182; italics in original). In essence, entrepreneurs using fame justifications foreground their "*desire to be recognized*" (p.179; italics in original), and entrepreneurial pitches using fame justifications emphasize "*external signs* of success" (p. 238; italics in original). Below, drawing on research on the differential emphasis of men and women on one's own public image, I conjecture gender differences in the entrepreneurs' use of fame justifications (see Table 1 for a sample pitch).

Social psychology research on children and adolescents suggests that cultural disapproval of girls seeking popularity, and that this gendered expectation is generally internalized by individuals (Kiefer & Ryan, 2008; Qin, 2009). In a study of children's perceptions of popularity, LaFontana and Cillessen (2002) found that girls were more likely than boys to hold negative connotations about popularity, associating it with dominance rather than likability. On the other hand, there is some evidence suggesting that boys indeed care about being popular more than do girls (Kiefer, Matthews, Montesino, Arango, & Preece, 2013; Rose & Rudolph, 2006). In fact, as gender role theory predicts, boys who do not seek popularity are seen as violating gender norms (Breslend, Shoulberg, McQuade, & Murray-Close, 2018). Consistent with this body of research, findings reveal that men are more desirous of social recognition and fame than are women (Frieze, Olson, Murrell, & Selvan, 2006; Southard & Zeigler-Hill, 2016; Tereškinas, 2018; von Rueden, Gurven, & Kaplan, 2011). For example, in a study of charitable giving, Dvorak and Toubman (2013) found that desire for recognition is a stronger driver of alumni donations for men than women. In line with these findings, I expect that men entrepreneurs are more likely to use fame justifications that aim to establish worth based on the extent of public attention, knowledge, and opinion than do women entrepreneurs. Stated more formally:

Hypothesis 1.4. Women entrepreneurs are less likely than men entrepreneurs to use fame justification in their crowdfunding pitches.

Market Justifications

According to Boltanski and Thévenot (2006), market justifications emphasize worth in monetary terms and competitiveness (see Table 1 for a sample pitch). Individuals using market justifications foreground their desire to "*exploit* the situation *opportunistically* and *take advantage of opportunities* that arise" (p. 197; italics in original) and tend to see transactions in terms of "*profit*...*benefit*…[and] *payback*" (p. 202; italics in original). In essence, entrepreneurs using market justifications attempt to establish legitimacy and worth based on the "price or economic value of goods and services in a competitive market" (Thévenot et al., 2000: 240). Below, drawing on research on the differential orientations of men and women towards competition and success in monetary terms, I conjecture gender differences in the entrepreneurs' use of market justifications in their crowdfunding pitches.

One of the most widely noted attitudinal difference between gender is the preference for competition. Research suggests an association of male hormone testosterone with agentic behaviors (Archer, 2006). Evolutionary theories suggest that men's evolved disposition favoring competition in contrast to women's reflect genetically mediated adaptations to environmental conditions (see Eagly & Wood, 1999 for discussion). Scholars taking the social role (Eagly, 1987) and biosocial perspectives (Wood & Eagly, 2012) also point to similar gender proclivities. They postulate that male tendencies towards competitive behaviors and dominance are a result of an interaction of stereotypical expectations and internalized gender self-concepts with the biological mechanisms involving activation of specific hormones (Wood & Eagly, 2012). Consistent with these perspectives, several studies across disciplines have found gender differences in competitiveness. A review of economic experiments addressing gender differences suggests that women are more averse to competition than are men (Croson & Gneezy, 2009). In fact, research finds that competitive behaviors by women are seen as counter-stereotypical and more likely to evoke social and economic backlash from others (Rudman & Phelan, 2008). Women self-report lower levels of competitiveness than men (Spence & Buckner, 2000). The phenomenon of 'stereotype threat,' i.e., the notion that negative stereotypes about a group create doubts and anxieties in the minds of its members (Steele & Aronson, 1995), suggests that in male-typed settings such as entrepreneurship women may exhibit lesser competitive tendencies than they normally would. Consistent with these research findings, I conjecture gender differences in entrepreneurs' use of market justifications. I expect that women are less likely than men to use the market justification that draws on the "vocabulary of competition" (Boltanski & Thévenot, 2006: 197). This is furthermore supported by research in sociolinguistics which finds that men more than women use language “to assert dominance and to achieve utilitarian goals (i.e., self-assertion)” (Leaper & Ayres, 2007: 328-329).

Relatedly, gender differences have been observed in the emphasis women and men place on personal success. Women are less achievement and success oriented than men (Lamont, 1992; Schwartz & Rubel, 2005), and value jobs that provide opportunities for promotion less than do men (Konrad et al., 2000). Furthermore, success defined in monetary terms is more attractive to men than women (Orser & Dyke, 2009). Because men have traditionally occupied income-generating roles, there is a greater tendency among men to prefer jobs that provide opportunities for high earnings than do women (Konrad et al., 2000). Consequently, I expect that women are less likely than men to draw on the market justification that emphasizes “*success…. getting ahead*...being a *winner*, a *top dog*” (Boltanski & Thévenot, 2006: 197; italics in original). This is further supported by some evidence pointing to lower behavioral tendencies of women towards opportunism (Czibor et al., 2017; Kennedy, Kray, & Ku, 2017). More formally, consistent with the gender-role hypothesis, I propose the following:

Hypothesis 1.5. Women entrepreneurs are less likely than men entrepreneurs to use market justification in their crowdfunding pitches.

Industrial Justifications

At the core of industrial justifications, as Boltanski and Thévenot (2006: 203) elaborate, is legitimacy and worth based on the use of “technological objects and scientific methods” (see Table 1 for a sample pitch). Industrial justifications emphasize “technical efficiency and professionalism, planning and long-term investment” (Thévenot et al., 2000: 243). Entrepreneurs using industrial justifications in their crowdfunding pitches place importance on professional qualifications, organized systems, and quantitative evaluations of performance. Below, drawing on research on the differential attitudes of men and women towards functional aspects and quantitative measurements, I conjecture gender differences in the entrepreneurs' use of market justifications in their crowdfunding pitches.

The greater tendency of men entrepreneurs to use industrial justifications can be explained by gender differences in attitudes towards objective measures of success and achievements. In general, women tend to place greater importance on intrinsic values than do men (Justo, de Castro, Coduras, & Cruz, 2006; Konrad et al., 2000). This relative emphasis on intrinsic values translates into a differential desire for growth observed among men and women small business owners (Rosa, Carter, & Hamilton, 1996). In a study of entrepreneurs in Canada, Cliff (1998) found that women entrepreneurs are more likely than male entrepreneurs to prefer not to expand their business beyond a threshold size and not to adopt a fast-paced growth. This more cautious attitude towards growth and a strong preference for a "small and stable business" reflects women entrepreneurs' relatively higher personal considerations for achieving work-life balance and their view of being an entrepreneur as an extension of their other roles (Lee-Gosselin & Grise, 1990: 423). These findings suggest that women are less likely than men to use industrial justifications that rely on objective measures of performance and quantifiable evidence for long-term growth potential (Boltanski & Thévenot, 2006).

The proposed greater tendency of men entrepreneurs to use industrial justifications is also supported by linguistic research on gender differences. Men are instrumental, assertive, and "conveyors of information and fact," and women are expressive, nonassertive, and tentative in their language use (Ann, 1991; Lakoff, 1973; Haas, 1979: 622). Consistent with gender stereotypes, men more frequently make references to money, business, time, space, and quantity than women in their language (Gleser, Gottschalk, & John, 1959; Haas, 1979; Mulac et al., 2006).

From these arguments, it follows that men are less likely than women to use industrial justifications that draw on factual indicators of progress, performance, and future potential. The industrial justifications' emphasis on one's "*professional qualification*...related to their capability and their activity" (Boltanski & Thévenot, 2006: 206; italics in original) is also consistent with prior findings indicating that men more than women link their cherished material possessions to their "accomplishments and mastery" (Wallendorf & Arnould, 1988: 543). More formally, I predict the following:

Hypothesis 1.6. Women entrepreneurs are less likely than men entrepreneurs to use industrial justification in their crowdfunding pitches.

Chapter 5: Study 2 - Effectiveness of Justifications Used by Women and Men Entrepreneurs

In this chapter, I develop hypotheses that link entrepreneur gender and the justification strategies entrepreneurs use to the likelihood of raising financial capital on crowdfunding. I specifically address gender dynamics in the context of prosocial crowdfunding that generally draws “a skewed sample of socially conscious lenders, mostly from developed countries, looking specifically for the opportunity to lend to microentrepreneurs from disadvantaged backgrounds, typically operating in adverse environments” (Moss et al. 2018: 644). I seek to examine the dynamics of prosocial crowdfunding through the lens of entrepreneurship as emancipation (Jennings et al., 2016; Rindova et al., 2009). Essentially, I view prosocial crowdfunding platforms as enabling “entrepreneurship as a social change activity with a variety of possible outcomes” (Calas et al., 2009: 553). This lens departs from the dominant theoretical perspective of “entrepreneurship primarily as an economic activity,” which, as scholars have argued, may “miss many of the contextual dynamics making these activities important for specific people in specific places and for specific reasons – reasons that may differ from the normative premises in the mainstream literature” (Calas et al., 2009: 553).

In the next section, I address the baseline replication hypothesis on whether women entrepreneurs are more likely to succeed in raising finance in the prosocial crowdfunding context. An emancipatory lens of prosocial crowdfunding suggests that investors’ legitimacy judgments are likely based on perceptions of nature and extent of constraints facing the entrepreneur, the change orientation of entrepreneur, as well as the potential of proposed endeavor. Taking this theoretical backdrop, I suggest below that, all else equal, entrepreneurs from historically disadvantaged groups (i.e., women) are more likely to receive financial backing from prosocial investors.

Next, I explore the central question of how the different justification modes used in entrepreneurial pitches relate to crowdfunding success for women and men entrepreneurs. I propose that the use of some types of justifications (i.e., inspired, market, and civic) will increase the chances of receiving financial backing from prosocial investors as these types create a perception in prosocial investors that the entrepreneurial endeavor needing financial resources has significant emancipatory potential. These specific justifications, as compared to domestic, industrial, and fame justifications, are more likely to provide a convincing account to the potential backer that the proposed entrepreneurial activity when funded is likely to disrupt the status quo in positive ways for entrepreneurs, and potentially for others in their environments. However, I argue that the effectiveness of the inspired, market, and civic justifications will vary by the gender of the entrepreneur. Integrating theories from social psychology and prosocial motivations with the entrepreneurship as emancipation perspective, I propose how some specific types of justifications differentially relate to crowdfunding success for women and men entrepreneurs. Drawing on gender role theory (Eagly & Wood, 2012), I argue that potential backers' decision to fund an entrepreneurial venture will be influenced by whether symbolic actions of entrepreneurs in the crowdfunding setting match or counteract widely shared cultural beliefs about characteristics attributed to women and men entrepreneurs. I propose an interaction effect between entrepreneur's gender and justifications such that women and men entrepreneurs are more likely to be successful at crowdfunding when they use justifications that increase perceived legitimacy in the eyes of investors by countering their gender stereotypes.

ENTREPRENEUR'S GENDER AND PROSOCIAL CROWDFUNDING

Prior research suggests that legitimacy judgments of social actors are often based on the generic category to which they belong (Bitektine, 2011; Huy et al., 2014; Tost, 2011). Because online crowdfunding platforms often make gender salient by highlighting gender disparity in financial resource acquisition and by broadly appealing to potential investors to support women (Kiva, 2019), gender category is likely to be a cognitive shortcut used by prosocial investors for forming legitimacy judgments about entrepreneurs. Specifically, I expect that backers on prosocial crowdfunding platforms are more likely to see women than men as historically disadvantaged and as engaging in their proposed entrepreneurial activities to "escape from or remove perceived constraints …in a variety of environments - economic, social, technological, cultural, and institutional" (Rindova et al., 2009: 480). The perception of women as "one class of 'weak and oppressed' people" in need of emancipation is indeed a stereotypical belief that causes women to receive more help than men (Eagly & Crowley, 1986). Research in crowdfunding as well suggests that women entrepreneurs are perceived as members of the disadvantaged group facing structural barriers (Greenberg & Mollick, 2017).

On prosocial crowdfunding platforms, investors are motivated by the desire to make a difference. Prosocially motivated investors are keen to help others bring their ideas to fruition and promote their welfare (Bolino & Grant, 2016). Because prosocial motivations are influenced by the expected impact - i.e., the recognition that one's efforts are indeed making a difference to someone (Grant, 2008; Kuppuswamy & Bayus, 2017, 2018; Sonnentag & Starzyk, 2015; Touré-Tillery & Fishbach, 2011, 2017), women entrepreneurs are more likely to receive financial backing from crowdfunding backers. Unlike men entrepreneurs, women entrepreneurs are more likely to be perceived as having a legitimate need for financial capital as their need is presumed to arise from circumstances beyond their control rather than their own intentional acts (Schwartz & Fleishman, 1978). Furthermore, there is a general perception that supporting women entrepreneurs may contribute to their social inclusion and help their families (Armendáriz & Morduch, 2010; Cheston & Kuhn, 2002). Thus, all else equal, prosocial crowdfunding investors are likely to perceive women entrepreneurs as more legitimate fund seekers than their male counterparts and expect their financial support to women entrepreneurs to have a more significant impact than the same support extended to men entrepreneurs. This leads to the following hypothesis:

Hypothesis 2.1. Women entrepreneurs are more likely than men entrepreneurs to be successful in raising financial capital in prosocial crowdfunding contexts.

JUSTIFICATIONS USED BY WOMEN AND MEN ENTREPRENEURS IN THEIR CROWDFUNDING PITCHES

In this section, I take entrepreneuring as emancipation perspective (Rindova et al., 2009) to explore the justifications that are likely to be effective in the prosocial crowdfunding context. A core premise is that some types of justifications are more likely to be effective in symbolically highlighting the proposed change initiative as legitimate and worthy, and inducing a psychological state of prosocial motivation – “a momentary focus on the goal of protecting and promoting the welfare of other people” - in potential backers (Grant, 2008: 49). However, the effectiveness of a particular justification in establishing legitimacy is contingent on the entrepreneur’s gender.

Justifications Foregrounding Emancipation

In the emancipatory view, entrepreneurial endeavors are change initiatives undertaken by actors to address constraints facing them or others in their environments (Rindova et al., 2009). A core element of emancipatory entrepreneuring is *making declarations*, which involve "unambiguous discursive and rhetorical acts regarding the actor's intentions to create change" (2009: 485). In this view, successful mobilization of stakeholder support depends on entrepreneurs making clear their "attempted or enacted departure from the status quo" (Jennings et al., 2016: 83). Such positioning of entrepreneurial initiatives as departing from "pre-existing constrictive norms" is particularly crucial in crowdfunding contexts which tend to disproportionately draw investors who are prosocially motivated (2016: 83).

Besides perception of the others as in legitimate need (Batson, Eklund, Chermok, Hoyt, & Ortiz, 2007; Diamond & Kashyap, 1997; Schwartz & Fleishman, 1978; Sonnentag & Starzyk, 2015; see Bekkers & Wiepking, 2011 for review), prosocial motivations are influenced by perceived impact, which entails the recognition that one's efforts are indeed helping others, making a difference to them, or enhancing their welfare (Bolino & Grant, 2016; Cryder, Loewenstein, & Scheines, 2013; Grant, 2008; Touré-Tillery & Fishbach, 2011, 2017, 2018). As goal theory of helping behavior suggests, people are not prosocial "simply to be kind or to relieve negative emotions; they obtain satisfaction from the feeling that they have personally had an impact in solving a social problem" (Cryder, Loewenstein, & Seltman, 2013: 1082). Along similar lines, the economic theory of impact philanthropy proposes that donors are keen to maximize the difference they are personally making to someone (Duncan, 2004). Indeed, in a recent large-scale study of a crowdfunding platform, Kuppuswamy and Bayus (2017) find evidence for the proposition that perceptions of impact positively relate to support for a project.

From this prior research, it can be conjectured that the prosocial impact investors expect to have by supporting a crowdfunding project influences their likelihood of eventually backing it. Perceptions of constraints facing entrepreneurs seeking crowdfunding, their intent to “break free from (and potentially break up) existing constraints” through their proposed or undertaken endeavors (Jennings et al. 2016: 81), and potential of success of the endeavors have an important influence on prosocial investments. Justifications that draw attention to “social change agendas” of entrepreneurial projects are thus crucial to mobilizing support from prosocial crowdfunding investors (Rindova et al., 2009: 483).

Boltanski and Thévenot’s (2006) justification typology is useful to account for various symbolic ways to articulate the emancipatory potential by spotlighting the entrepreneurial constraints, change-orientation, and project potential. Inspired justifications provide an emancipatory account by foregrounding entrepreneurs’ discontent with established ways and forms, their desire to create something new, and their risk-taking capacity and passion for seeing them through. Similarly, market justifications suggest emancipatory entrepreneuring by calling attention to market-based instruments that entrepreneurs utilize to address financial and nonfinancial constraints in their environments as well as by underscoring their opportunistic tendencies to “*make the most* of everything” (2006: 200; italics in original). Civic justifications likewise are inherently emancipatory in nature as they draw attention to social constraints, assert the need for a “*mobilization* around a *cause*,” and emphasize the “*capacity for collective action*” (2006: 191-193, italics in original).

In contrast to the inspired, market, and civic justifications that express emancipatory intentions, domestic, fame, and industrial justifications emphasize status quo, albeit in varied ways. For instance, domestic justifications insist on preserving stabilities “through reference to *generation, tradition, and hierarchy*" (Boltanski & Thévenot, 2006: 237; italics in original). Industrial justifications grant importance to routines, "well-established methods and ways of doing things," and the "resultant stability" (2006: 240). In essence, by "inciting to constancy" (2006: 237), both domestic and industrial justifications fail to position an entrepreneurial initiative as emancipatory. Likewise, by turning to worth in terms of renown, public opinion, or "by identifying with a fad or fashion and conforming to it with servility" (2006: 265), fame justifications are oriented towards status quo.

Combined, the preceding arguments and findings suggest that emancipatory justifications (inspired, market, and civic) used in crowdfunding pitches enhance prosocial impact that investors expect to make by funding corresponding entrepreneurial endeavors. In contrast, by privileging status quo over change-orientation, non-emancipatory justifications (domestic, industrial, and fame) used in crowdfunding pitches diminish the perceptions of prosocial impact. Thus, emancipatory justifications increase the chances of obtaining capital, while non-emancipatory justifications decrease the likelihood of prosocial investors supporting crowdfunding projects. Stated, more formally:

Hypothesis 2.2. Emancipatory (non-emancipatory) justifications used in pitches will positively (negatively) affect access to financial capital for entrepreneurs in prosocial crowdfunding contexts.

Whereas I anticipate non-emancipatory justifications to have a negative effect regardless of entrepreneur gender, I expect gender differences in the effectiveness of emancipatory justifications. In the following section, I draw on social psychology theories on gender to propose the differential effects of using inspired, market, and civic justifications.

Gender and Emancipatory Justifications

Gender is among the most influential stereotypical characteristic affecting social evaluations in work (Heilman, 2001) as well as in entrepreneurial settings (Carter et al., 2007; Fischer, Reuber, & Dyke, 1993). Traditionally, gender stereotypes reflect the Bakan's (1966) two dimensions of human existence: agency and communion. Gender stereotypes describe women as 'communal' and men as 'agentic.' While women are seen as relationship-oriented and characterized as kind, caring, sympathetic, helpful to others and emotionally expressive, men are seen as achievement-oriented and described as instrumentally competent, aggressive, decisive, independent, and forceful (Abele, 2003; Bakan, 1966; Fiske & Stevens, 1993).

Gender *role beliefs* - i.e., shared beliefs within a society about intrinsic traits or characteristics of women and men - as Wood and Eagly (2010) describe, arise from observed division of labor and from inferences that people make from specific social roles that each sex is more likely to fill than the other (Eagly & Wood, 2012). The segregation of men and women into social roles, such as caretaking roles exclusively occupied by women, feed into gender role beliefs (Eagly, Wood, & Diekman, 2000). Researchers argue that a society's division of labor is itself a product of local ecology, culture, and economic conditions on one hand and on the other, the distinctive physical characteristics of each sex, such as women's reproductive activities, and men's size and strength. Such gender roles, they posit, shape social psychological processes as well as biological processes, eventually leading to sex-differentiated affect, cognition, and behavior. These processes are postulated to stabilize society's sex-based division of labor.

Despite increased education levels of women and their growing proportion in mainstream labor, these gender stereotypes have unfortunately persisted (Eagly & Wood, 2012). Progress in some societies towards egalitarian structures notwithstanding, sex-typed roles and social expectations still prevail across cultures (Wood & Eagly, 2002). Entrepreneurship continues to be seen as a predominantly masculine behavior and as incongruent with feminine roles (Ahl, 2006; Bird & Brush, 2002; Bruni, Gherardi, & Poggio, 2004a, 2004b). For instance, women are generally viewed as risk-averse despite strong evidence suggesting that they embrace risk (Maxfield, Shapiro, Gupta, & Hass, 2010). Financial capital providers tend to see female entrepreneurs as lacking required competence, experience, and social capital, and male entrepreneurs as possessing exceptional skills, credibility, and risk-taking propensity (Malmström et al., 2017). Both professional and nonprofessional investors prefer pitches made by male entrepreneurs as compared to pitches made by female entrepreneurs even when the pitch content is the same (Brooks et al., 2014). Despite similar strong business performances, female entrepreneurs receive considerably less funding than male entrepreneurs (Eddleston et al., 2016). This evidence indicates that entrepreneurship is gender-typed as masculine, and therefore gender is likely to become salient and gender stereotypes likely to play out in crowdfunding contexts as well (Ridgeway, 2014). Potential backers on crowdfunding platforms are expected to consider the gender of an entrepreneur seeking funds when making funding decisions, and attend to cues in the pitches that align with and counter gender stereotypes.

Gender role beliefs are while descriptive in nature, also become prescriptive as the intrinsic characteristics typical of each sex come to be seen as expected, “desirable and admirable” (Eagly, 2009; Heilman, 2001; Wood & Eagly, 2010: 632). Behaviors that do not conform to gender role expectations are, as role congruity theory suggests, generally ignored, prejudiced, or penalized (Eagly & Karau, 2002; Eagly & Wood, 2012). Considerable evidence suggests that both women and men engaging in counter-stereotypical behaviors generally risk “social and economic reprisals” (Rudman & Phelan, 2008: 61). Women entrepreneurs are thus likely to face a ‘double bind’: “female behavior is not valued and masculine behavior is not condoned” (Shapiro, Ingols, & Blake-Beard, 2008: 311). However, backlash effects for men in the field of entrepreneurship may be less pronounced. Because the field of entrepreneurship is traditionally seen as a male preserve, male entrepreneurs are less bound. Meta-analytic evidence demonstrates, for example, that engaging in a feminine leadership style does not disadvantage men (Eagly, Makhijani, & Klonsky, 1992). Agentic men’s display of communal tendencies elicits negative reactions to a lesser extent than communal women’s display of agentic behaviors, as men do not seem to violate the norms that they “ought to be communal” (Rudman & Glick, 2001: 345). Taken together, prior research suggests that while women and men entrepreneurs are more likely to succeed in crowdfunding when they engage in symbolic actions that affirm their stereotypical gender behaviors, the manifest counter-gender stereotypical behaviors are more detrimental to the crowdfunding efforts of women entrepreneurs than to the crowdfunding efforts of men entrepreneurs.

In the context of prosocial crowdfunding, however, counter-stereotypical behaviors may be beneficial. As argued earlier, women entrepreneurs are more likely than men entrepreneurs to be seen as facing structural barriers and therefore in legitimate need of financial resources to break free from these constraints in their economic, social, institutional, and cultural environments. These legitimacy perceptions, however, coexist with conventional masculine-agentic and feminine-communal stereotypes. Because perceived impact is a crucial driver of prosocially motivated individuals (Bolino & Grant, 2016; Duncan, 2004; Kuppuswamy & Bayus, 2017, 2018), women entrepreneurs are more likely to be successful in attracting investments when they emphasize their change-orientation and justify the potential of their proposed endeavor. Likewise, men entrepreneurs are more likely to improve their chances of obtaining financial capital in prosocial crowdfunding context when they can demonstrate a legitimate need.

In sum, I propose that women and men entrepreneurs are more likely to succeed in crowdfunding when they engage in justifications that counter their gender stereotypical behaviors. This prediction is in line with expectancy violation theory which proposes that "violations of expectations are sometimes preferable to confirmations of expectations" (Burgoon, 2016: 1; Jussim, Coleman, & Lerch, 1987). Applied to the current context, expectancy violation theory suggests that women entrepreneurs' symbolic actions that negate their gender stereotypes will be more positively evaluated.

Inspired Justifications

Entrepreneurial pitches framed using an inspired justification appeal to potential backers through passion (Boltanski & Thévenot, 2006). Entrepreneurs using inspired justification tend to portray their desire, fascination, and risk appetite for creating and pursuing "unusual ideas" (2006: p. 163). They attempt to induce support from stakeholders by emphasizing originality and creativity of their ideas, and their emotional attachment to pursue entrepreneurial opportunities. Entrepreneurial pitches using an inspired justification often use analogical or metaphorical frames and positive-emotionally charged language.

Women entrepreneurs who use inspired justifications in their crowdfunding pitches are likely to come across as "not afraid to define themselves by using terms that would devalue them according to a different logic" (Boltanski & Thévenot, 2006: 159-160). In inspired justifications, women entrepreneurs assert their "uniqueness... *originality* and *creativity*" (2006: 161-162; italics in original). Such justifications convey women entrepreneurs' inclinations to "'*break out* of habits and routines,' 'accept *risks*,' 'reject habits, norms, and sacrosanct principles,' and *call* everything *into question*" (2006: 161; italics in original). Through inspired justifications, women entrepreneurs foreground their inclinations “to *dream*, to *‘imagine*,’ that is, to *‘conceive* what does not exist’” (2006: 162, italics in original). Women entrepreneurs’ pitches drawing on inspired justifications make salient to potential investors creativity - which is often regarded as a stereotypically agentic quality metaphorically associated with “freedom to ‘think outside the box’,” “rule-breaking,” and “liberation from constraint” (Goncalo, Vincent, & Krause, 2015: 33). Inspired justifications frame women’s entrepreneurial undertaking as “striving to imagine and create a better world” (Rindova et al., 2009: 480; quote originally from Sarasvathy et al., 2003).

Combined, the inspired justifications used in crowdfunding pitches foreground women entrepreneurs’ change-orientation and increase investors’ perceived entrepreneurial passion. The consequent attributions of agency combined with the stereotypical perception of women entrepreneurs as having a legitimate need are likely to increase investors’ expected impact (Davis et al., 2017). Women entrepreneurs using inspired justifications induce an image of individuals “separating themselves from the herd” and “seeking *individual liberation*, not in order to pursue a selfish goal but in order to achieve human dignity” (Boltanski & Thévenot, 2006: 162; italics in original). In contrast, in the absence of a perceived legitimate need, men entrepreneurs using inspired justifications may come across as overambitious, impulsive, and individualistic to prosocial crowdfunding investors. Thus, I hypothesize the following:

Hypothesis 2.3. Inspired justification used in pitches will positively (negatively) affect access to financial capital for women (men) entrepreneurs in prosocial crowdfunding contexts.

Market Justifications

An entrepreneurial pitch using market justification is framed as a “business deal” with significant potential monetary value (Boltanski & Thévenot, 2006: 202). Entrepreneurs using market justifications emphasize comparative pricing, costs, and competitiveness. They attempt to attract key stakeholders by drawing attention to the market demand for and saleability of goods. The evidence of worth supplied in an entrepreneurial pitch using market justification are revenues, profits, paybacks, and other utilitarian benefits. Women entrepreneurs who use market justifications in their crowdfunding pitches are likely to come across as motivated by desires of "getting ahead, challenging oneself…[and] being a winner" (Boltanski & Thévenot, 2006: 161).

Further, in terms of temporal framing, market justifications used in pitches highlight the orientation of entrepreneurs to address the more immediate concerns of the present, such as an urgent need for capital to address a market opportunity, problems of selling, or short-term expenses. As Boltanski and Thévenot (2006: 197) describe, a state of worthiness emphasized through market justification includes "no memory of the past" (unlike domestic justification) and "no plan for the future" (unlike industrial justification). Instead, market justifications emphasize making immediate profits through opportunism. Prior research suggests that charitable requests and crowdfunding pitches that portray such a short-term temporal orientation, and clearly communicate present concerns and immediate needs are more likely to succeed in attracting investors (Allison et al. 2013; Althoff, Danescu-Niculescu-Mizil, & Jurafsky, 2014). The extent of use of market justification by women entrepreneurs increases expected prosocial impact by creating perceptions of evident need and tangible utilization of funds requested in the near term (Cryder et al., 2013).

Market justification is particularly likely to be seen as emancipatory in nature when used in women entrepreneurs' pitches as such justifications are counter-stereotypical for females (see Chapter 4). Such justifications based on the vocabulary of competition and monetary success are likely to create a perception of the entrepreneurial undertaking as "changing their [entrepreneurs'] position in the social order in which they are embedded" by "improving their economic positions" (Rindova et al., 2009: 483). Market justification thus creates the perception among prosocial investors that women entrepreneurs are keen to change their status quo. It also creates an impression that their investments will be more effective by inducing an image of women entrepreneurs as committed to "*exploit* the situation *opportunistically* and *take advantage of opportunities* that arise" (Boltanski & Thévenot, 2006: 197; italics in original). In contrast, because men entrepreneurs, unlike women entrepreneurs, are not likely to be perceived as having a legitimate need, their use of market justification is likely to create a perception that they are simply "occupied with satisfying their self-centered desires" (Boltanski & Thévenot, 2006: 198). Thus, I propose:

Hypothesis 2.4. Market justification used in pitches will positively (negatively) affect access to financial capital for women (men) entrepreneurs in prosocial crowdfunding contexts.

Civic Justifications

Entrepreneurial pitches using civic justification appeal to potential backers by drawing attention to socio-economic inequalities in society and the need for collective action (Boltanski & Thévenot, 2006). Entrepreneurs using civic justifications tend to emphasize the potential of a proposed idea or solution to advance collective common interests. Pitches framed with civic justifications point to how entrepreneurs plan to organize their efforts through chapters, committees, or other legal bodies that subordinate individual agendas to the general will. Entrepreneurs attempt to induce support from key stakeholders by "mobilizing them around a common interest" (Boltanski & Thévenot, 2006: 186). Essentially, civic justification used in entrepreneurial pitches frames the entrepreneurial undertaking as a way to advance the common needs of citizens and collective welfare (Boltanski & Thévenot, 2006).

Promoting equality and solidarity, and meeting the needs of minority groups are often the guiding rationale underlying an entrepreneurial pitch that uses civic justification. Thus, men entrepreneurs using civic justifications are likely to be seen as articulating a legitimate need. The consequent attributions of legitimacy, combined with the stereotypical agentic perceptions of men as competent, capable, striving, and industrious, create an expectation in the minds of prosocial investors that their contributions will make an impact.

In contrast, women entrepreneurs using civic justifications are likely to be seen as engaging in ambitious social change agendas that they are unlikely to be successful at. Unlike inspired and market justifications that are expected to promote attributions of agency when used by women entrepreneurs, civic justifications with its communal emphasis may fail to create perceptions of agentic women who are capable of seeing the intended large-scale changes through to fruition. Thus, I propose the following:

Hypothesis 2.5. Civic justification used in pitches will negatively (positively) affect access to financial capital for women (men) entrepreneurs in prosocial crowdfunding contexts.

Chapter 6: Study 3 - Investor’s Gender and Justifications Used

While many of the initial crowdfunding models facilitated donations and rewards, they have evolved over the years to enable more structured loans to entrepreneurs as well as equity investments in new ventures (Bruton et al., 2015). An emerging body of work has mainly focused on subjective attributes that factor into the decision-making process of entrepreneurial investments on these different platforms (e.g., Cholakova & Clarysse, 2015; Iyer, Khwaja, Luttmer, & Shue, 2009). In this chapter, I aim to contribute to the literature on investment behavior by exploring gender differences in the evaluation criteria used by prosocial crowdfunding investors. More specifically, I address the following question: Are women investors more (less) likely to use specific evaluation criteria and consequently find crowdfunding pitches using specific justifications more (less) appealing than do men investors in prosocial crowdfunding contexts?

Although some recent crowdfunding studies have examined investor gender related differences in contributions (e.g., Greenberg & Mollick, 2017; Marom et al., 2016; Mohammadi & Shafi, 2018), they do not, however, answer whether and how women and men prosocial investors’ tendencies of backing a crowdfunding project may be differently affected by specific framings of the appeal. Despite the evidence that narratives often shape crowdfunding investors' decisions (e.g., Allison et al., 2013, 2015, 2017; Anglin, Wolfe, et al., 2018; Moss et al., 2015, 2018) and findings revealing that the persuasiveness of appeals may vary by gender of prospective investors (e.g., Brunel & Nelson, 2000, 2003), there is a lack of scholarly attention on symbolic mechanisms.

Below, I begin by reviewing the literature on gender differences in prosociality, which refers to behaviors that are motivated by the desire to benefit others. Informed by prior research as well as theories of gender differences (gender role theory, Eagly, 1987; and the selectivity model of information processing, Meyers-Levy, 1989), I develop hypotheses about how each of the six justifications may vary in the extent to which they persuade and draw women and men prosocial crowdfunding investors.

GENDER AND PROSOCIALITY

Differences and Similarities

An extensive body of literature has examined prosocial behaviors, a domain of actions, such as, but not limited to, helping, volunteering, and charitable giving that are "consensually regarded as beneficial to others" (Eagly, 2009: 645). Much of the extant research in this literature has acknowledged and documented that prosocial behaviors are gendered phenomena (Mesch & Pactor, 2012). With respect to philanthropy, for example, several empirical studies reveal that women are more likely to donate, support more different charitable causes, and show greater willingness to volunteer than do men (Belfield & Beney, 2000; Burgoyne, Young, & Walker, 2005; Chang & Lee, 2009; De Wit & Bekkers, 2016; Mesch, Brown, Moore, & Hayat, 2011; Mesch, Rooney, Steinberg, & Denton, 2006; Piper & Schnepf, 2008; Rooney, Mesch, Chin, & Steinberg, 2005; Simmons & Emanuele, 2007; Sokolowski, 1996). Women are also more likely to work in the nonprofit sector than men in many countries including the U.S (Themudo, 2009). Women value helping others more than do men, and experience greater guilt than men when they fail at compassionate acts (Wilson, 2000; Wilson & Musick, 1997). Investigating gender differences in organizational context, Williams' (2003) study revealed that firms with a higher percentage of women on board engage in charitable giving to a more considerable extent than firms having lower gender representation on board. As such, women are found to be more likely to give to workplace initiatives soliciting charitable donations (Leslie, Snyder, & Glomb, 2013).

Besides differing on the extent of prosociality, much research also finds that women and men differ in their prosocial preferences and behavioral patterns. In support for the assertion that men and women have different "tastes for giving," Andreoni, Brown, and Rischall (2003: 111) found that women reported that they were more likely to give to, for example, health, education, and human services causes, while men were more likely to give to adult-recreation initiatives. Unlike men who focus their giving among a few charities and causes, women tend to spread their giving across charities and causes (Mesch & Pactor, 2012). Some scholars have asserted that while women give to support social change, men give to gain recognition and enhance their own standing (Hall, 2004; Oppedisano, 2004). Whereas women tend to perceive volunteering as "an expression of caring and an expression of their inner selves," men are more likely to perceive volunteering as opportunities for social recognition (Wymer & Samu, 2002: 977). While female volunteers associate themselves with people-oriented organizations, male volunteers prefer to associate with goal and achievement oriented organizations (Wymer, 2011). Other studies add to this by showing that women's prosocial behaviors have a communal and relational emphasis, while men's prosocial behaviors are directed towards social collectives and gaining status (Eagly, 2009). In terms of homophily effects, while some evidence in economics literature indicates that women give systematically less to women than to men and unknown persons (Ben-Ner, Kong, & Putterman, 2004), others suggest that women provide disproportionately high support to other women to help them overcome historical disadvantages (Greenberg & Mollick, 2017).

Some studies, however, fail to find evidence for women's greater proclivity for prosociality. In a review of the literature, Krebs (1970) noted inconsistent evidence for sex differences in altruism. Other reviews make similar conclusions about inconsistent sex and gender differences in prosocial behavior (Penner, Dovidio, Piliavin, & Schroeder, 2005; Piliavin & Charng, 1990; Schlegelmilch, Love, & Diamantopoulos, 1997). In terms of volunteering, there were no gender differences in some countries, and in others, more volunteering by men than women were reported (Wilson, 2000). In a study of a large public university, Okunade, Wunnava, and Walsh (1994) found no gender differences in alumni giving. Some experimental economics studies similarly report evidence that is contrary to the higher giving tendencies of women. Bolton and Katok (1995), for instance, found that that there were no gender differences in the generosity of individuals engaged in a dictator game in which individuals were tasked with distributing money among themselves and others. Economic studies in natural settings also find that gender does not affect giving behavior (Frey & Meier, 2004). Women and men do not significantly differ in the amount donated (Bekkers, 2007). As such, some evidence does not support the supposition that women are more empathic and altruistic than men (Kottasz, 2004). In contrast to the stereotype of women as more prosocial, some studies report findings suggesting that men are more generous (Meier, 2007; Sokolowski, 1996). While women are more likely to give, men appear to give more substantial amounts (Piper & Schnepf, 2008). Men tend to particularly engage in more instrumental helping than women (Eisenberg, 1992). Wymer and Samu (2002) also found that men not only volunteer more time than women, but also volunteer for more number of organizations. Further, in terms of homophily effects, some evidence suggests that both men and women are more willing to donate to a person in need whose gender matched their own (Ein-Gar & Levontin, 2013). Combined, the findings from these studies claim that "neither sex deserves recognition for delivering the majority of prosocial behavior" (Eagly, 2009: 649).

Several scholars have addressed the mixed results, suggesting that whether women are more prosocial relative to men is context dependent. One explanation offered for the absence of or only a slight gender effect on prosocial behavior is that women's higher levels of prosocial motivations are canceled out by men's more significant levels of human, social, and financial capital (Einolf, 2011). Wilson (2000) argued that although women have greater empathy and altruistic tendencies, they may not take to volunteering as much as men due to lack of free time and relevant human capital. Despite being more public-spirited and concerned with the common good, women's "labor donations" to the nonprofit sector may be less than those of men in cultural contexts where women are less empowered to participate in public life (Themudo, 2009: 666). Similarly, Andreoni and Vesterlund (2001) demonstrated in an experimental study that women were more altruistic than men when it was relatively expensive to give; however, men were more altruistic than women when the price of giving was low. Similarly illustrating the influence of decision context on gender differences in generosity, Cox and Deck (2006) demonstrated that women were more generous than men when, for example, the monetary cost of giving was low. Yet others have attempted to account for mixed effect by suggesting possible gender bias in social desirability. They posit that women are more likely than men to under-report charitable contributions, but not volunteering as the latter involves greater commitment and caring than donating money (Sokolowski, 1996). Reviewing the mixed findings on prosocial behaviors, some scholars claim that although evidence is not always consistent, it more often supports rather the challenges the common notion that women are more prosocial than men (Mesch & Pactor, 2012). Others have concluded that although "women and men are similar in engaging in extensive prosocial behavior, they are different in their emphasis on particular classes of these behaviors" (Eagly, 2009: 644).

Accounting for Differences

Explanations offered for the observed gender differences in prosocial behavioral patterns point to higher levels of empathy, altruistic tendencies, felt moral obligations to help (Einolf, 2011), and moral principles of care among women as compared to men (Baron-Cohen & Wheelwright, 2004; De Wit & Bekkers, 2016; Griffin, Babin, Attaway, & Darden, 1993; Lee, Piliavin, & Call, 1999; Mehrabian & Epstein, 1972; Mesch et al., 2011; Mills, Pedersen, & Grusec, 1989; Wymer & Samu, 2002). Compared to women, men's prosocial behaviors are more sensitive to social norms (Croson, Handy, & Shang, 2009). In one of the earliest reviews, Hoffman (1977) concluded that the stereotype that women are more empathic and altruistic than men is generally true. Women self-report greater empathic concern than men (Davis, 1983). Insights from cognitive and social psychology suggest that connectedness is central to women's self-schemata as a consequence of which women are more sensitive and responsive to the troubles of others (Markus & Oyserman, 1989). Women's basis of moral judgments is, according to Gilligan (1982), distinct from those of men. She contends that women tend to include others needs and voices in their decisions, while men base their judgments on logic and their autonomous identity. The socialization of women into domestic, nurturance, and caring gender roles have been suggested to result in such strong prosocial values (Anderson, 1993; Gilligan, 1982; Wymer, 2011). Neuropsychological and neurobiological research that examines the interaction of biological and social influences also support the assertion that women may be more empathetic than men (Rueckert & Naybar, 2008; Warrier et al., 2017; Wymer, 2011). In essence, the differences in prosocial behaviors between men and women are aligned with widely shared gender role beliefs, which reflect a biosocial interaction between physical attributes of the two sexes and demands of social structure (Eagly, 2009; Wood & Eagly, 2012).

Influence of Prosocial Appeals

The collective evidence about the fundamental question of whether message content and framing affect prosocial proclivities is unequivocal. It suggests that some messages are more effective than others in influencing donation intentions and behaviors. For example, field experiments by Bagozzi and Moore (1994) show that the more emotionally intense the ads that appeal to help others, the more effective they are in stimulating negative emotions, empathetic response, and desire to help. Charitable giving is influenced by appeals that arouse guilt (Hibbert, Smith, Davies, & Ireland, 2007). In the consumer behavior literature, it was found, for instance, that an ad campaign stating that a percentage of sales price of a product will be donated to charitable causes was less effective in increasing consumers' willingness to purchase the product than an ad that presented the donations to be made in absolute numbers (Kleber, Florack, & Chladek, 2016).

Many studies, however, reveal that the efficacy of different appeals is dependent on individual and contextual characteristics. For example, White and Peloza (2009) find that other-benefit requests encourage prosocial behavior for individuals who tend to focus on public self-image and in situations that heighten public self-image concerns. Exploring gender differences in the effect of message appeals on prosocial behavior is becoming increasingly important (e.g., Croson et al., 2009). As such, extant research suggests systematic differences between men and women on how they process messages with prosocial appeals (Meyers-Levy, 1989; Meyers-Levy & Maheswaran, 1991). Wang (2008) hypothesized and found that sad emotional appeals are more effective than rational appeals in influencing an individual's propensity to engage in prosocial behavior for women but not men. Similarly, Kemp, Kennett-Hensel, and Kees (2013) showed that appeals that triggered sympathy, a negatively valenced emotion, were more effective than appeals that triggered pride, a positive sentiment, in inducing prosocial behavioral intentions for women. They found that the opposite was the case in encouraging prosocial behavior for men. Brunel and Nelson (2000) proposed that charity messages are more appealing when they are congruent with the moral orientations of target audiences. They found that “help-others” messages - i.e., altruistic appeals implying that donation made will help others - were more appealing to women who emphasized caring, whereas “help-self” messages - i.e., egoistic appeals implying that donation made will help oneself - were more persuasive for men who are more oriented towards concerns of achievement and justice. In a subsequent study, they found that these effects of message fitting the value orientations were detected only under high task involvement conditions (Brunel & Nelson, 2003). Similarly, Chang and Lee (2011) found that gender differences in the persuasiveness of altruistic and egoistic charitable appeals are also contingent on how proximal to oneself the charitable cause is perceived to be by message recipients. Furthermore, Nelson, Brunel, Supphellen, and Manchanda (2006) demonstrated the moderating effect of national culture. They found that in masculine cultures, men and women preferred egoistic and altruistic appeals respectively, whereas the opposite was the case in feminine cultures.

Taken together, much research on prosociality suggests gender differences in prosocial values, attitudes, and behaviors. As scholars have noted, these gender differences in prosociality are mostly consistent with the gender roles and stereotypes (Eagly, 2009). The differences in prosocial value priorities of men and women also surface in how they respond to prosocial requests by others (Boggio, Fornero, Prast, & Sanders, 2015). In essence, men and women tend to use different “standards or criteria for evaluating what is to be preferred and not preferred, what is good and bad, what ought to be done and not done" (Feather, 1987: 31). Socialized into different value priorities, men and women may differ in their "cognitive-affective appraisal of a situation in relation to both means and end" (Feather, 1995: 1136). As motives and evaluation lenses, values men and women tend to emphasize shape gender differences in their motivated choice behaviors related to prosociality, as well as influence their appraisals of attractiveness and aversiveness of alternatives in a given situation (Eccles & Wigfield, 2002; Feather, 1988, 1992, 1995; Feather & Newton, 1982; Rindova & Martins, 2018). In the following section, I draw on this notion that gender-role corresponding values may make some criteria of evaluation more (or less) salient to men than women to propose that the justifications used in crowdfunding pitches may vary in their appeals to men and women prosocial investors.

PREDICTING DIFFERENTIAL APPEALS OF JUSTIFICATIONS USED

The rich body of literature on prosociality reviewed above suggests that gender differences are likely to manifest in the crowdfunding investment patterns of prosocial backers. Drawing on the theoretical analysis of gender differences in prosociality (e.g., Eagly, 2009), I conjecture that the likelihood of women and men prosocial investors being drawn to specific justifications used in crowdfunding pitches will match widely held gender role beliefs. The core assertion in social psychology research on gender that women and men may differ in their proclivities for such things as risks and quantitative information (Eagly & Wood, 1999) is also useful in understanding which justifications are likely to be more appealing to female versus male investors. Further, the selectivity model suggests that women and men differ in what cues they attend to and how they process information. This model is useful in understanding what specific entrepreneurial justifications women and men backers on crowdfunding platforms are more responsive to.

Inspired Justification

Much research suggests that across cultures women are more risk averse than men in a vast majority of contexts (Croson & Gneezy, 2009). Gender differences in risk preferences are shown to influence financial choices and investment decisions (e.g., Maxfield et al., 2010; Powell & Ansic, 1997). For instance, individual women investors, but not male investors, prefer bonds over equities in the securities market (Heminway, 2008). Some evidence suggests that these gender differences in risk aversion, although less pronounced, are prevalent even among professional investors as well. For instance, women mutual fund managers make less risky investments and follow less extreme investment choices than male fund managers (Niessen & Ruenzi, 2007). Consistent with this research on gender differences in risk propensities, research by Kauffman Foundation reports that female angel investors tend to be more conservative (Hudson, Kenefake, & Grinstead, 2006). From these findings, I expect that that inspired justifications that foreground risk-taking would be less appealing to women than men prosocial investors.

Relatedly, the tendency of women to be drawn less to inspired justifications than men can also be accounted for by gender differences in *sensation seeking*, which refers to “the need for varied, novel, and complex sensations and experiences and the willingness to take physical and social risks for the sake of such experiences” (Zuckerman, 1979: 10). Linked to risk aversion and creativity, this “desire for seeking novelty and intensity of experience” (Arnett, 1994: 293) is often found to be higher among men than women (Öngen, 2007; Romer & Hennessy, 2007; Rosenblitt, Soler, Johnson, & Quadagno, 2001; Wong & Carducci, 1991; Zuckerman, 1994).

Similarly, consistent with gender role hypothesis, meta-analysis conducted by Costa, Terracciano, and McCrae (2001) found that men reported themselves to be higher on *openness to ideas* (i.e., pursuant of unconventional ideas and intellectual interests), whereas women reported themselves higher on *openness to aesthetics* (i.e., appreciation of art and beauty) and *openness to feelings* (i.e., receptivity to own emotions) trait sub facets (Kaufman, 2013). Applying these findings, I conjecture that inspired justifications, which as Boltanski & Thévenot (2006: 163) elaborate, emphasize entrepreneurs' passion for engaging with "unusual ideas" and their "desire to create" something original, are more likely to appeal to men than women prosocial crowdfunding investors. Stated formally:

Hypothesis 3.1. Women prosocial investors are less likely than men prosocial investors to be drawn to crowdfunding pitches using inspired justifications.

Domestic Justifications

Past research in cognition suggests significant gender differences in information processing. In general, women are more sensitive to social cues than are men (Croson & Gneezy, 2009). According to the selectivity model of information processing, women are more comprehensive information processors, attending to both subjective and objective elements (Meyers-Levy, 1986). Supporting this assertion, Darley and Smith (1995), for example, found that women, unlike men, consider both subjective and objective attributes of a claim. They showed that when considering a low-risk product, subjective claims, such as the reputation of product manufacturer and assurance to attend to product defects, were as likely as objective claims based on, for example, price and safety concerns to elicit a favorable response from women. The perceptions of credibility that men formed were however influenced more by objective than subjective claims. In essence, they observed that women tend to engage in more "effortful, comprehensive, itemized analysis of all available information" than men (p. 43). Further, as Meyers-Levy and Loken (2015) note in their review of research on gender differences, this tendency to process data more comprehensively is particularly high in online settings where women tend to be less trusting than men. They suggest that in such contexts with high information asymmetry, women tend to more actively seek and interpret diagnostic cues to infer trustworthiness than do men.

Consistent with these findings and given the tendency of women's prosociality to be influenced by social distance (Croson & Gneezy, 2009; Mesch & Pactor, 2012), I expect that women prosocial investors are more likely than men prosocial investors to attend to domestic justifications in crowdfunding campaigns that emphasize such subjective elements as trustworthiness, personal ties, and local attachment. Stated formally:

Hypothesis 3.2. Women prosocial investors are more likely than men prosocial investors to be drawn to crowdfunding pitches using domestic justifications.

Civic Justification

Past research on gender differences in philanthropic giving and crowdfunding involvement often portrays women and men investors as motivated by different factors. In much of these studies, the generally accepted premise is that men are more utilitarian in their approach, whereas women are more motivated to help others (Oppedisano, 2004). It is observed that women have a greater inclination than men to make voluntary contributions with little or no intentions of either making a profit, or obtaining products or services in return (Marx, 2000). A central aspect of women's charitable giving has been to promote individual improvement and social change – a behavior that is congruent with gender role beliefs (Hall, 2004; McCarthy, 1990; Nowell, 1996). Women are strongly motivated to engage in and support social entrepreneurial initiatives with local and global humanitarian impact (Oppedisano, 2004). There is indeed a long history of philanthropic women using charitable giving not just in smaller denominations towards social service initiatives that provide access to education for girls and support for working-class women, but also in bigger denominations towards promoting large scale social changes through advocating for political equality and rights of women (Johnson, 2017). Even within economic literature, some researchers have observed that women are more "inequality averse," tending to include others' utility functions in their own (Andreoni & Vesterlund, 2001; see also Croson & Gneezy, 2009: 458 for review).

Entrepreneurship and crowdfunding research also suggests that women investors are mainly motivated by goals of equality and advancing social change. In a study of business angel investors in the U.K., Harrison and Mason (2007) found that while gender differences in investments are usually small, women investors were significantly more likely than their male counterparts to be motivated to support ventures with potential for social impact. Women are more likely than men to back crowdfunding campaigns on Kickstarter for altruistic reasons than for the prospect of receiving rewards (Marom et al., 2016). Further, as Greenberg and Mollick (2017: 364) show, activist choice homophily, which entails "support for fellow members of disadvantaged groups," predicts why women disproportionately back female entrepreneurs on crowdfunding platforms.

Social psychologists suggest that these gender differences in prosocial motivations and behaviors reflect women's "'collectivist,' 'socio-centric,' 'ensembled,' 'communal,' or 'connected,' schema for the self" as compared to men's "'individualist,' 'egocentric,' 'separate,' 'independent,' or 'autonomous' schema of the self" (Markus & Oyserman, 1989: 101). While men perceive themselves as separate from others, women see others as an extension of their individual selves (Wang & Mowen, 1997). These contrasting self-concepts of men and women also manifest in how they differently process information and emotionally respond. There is evidence in consumer psychology research indicating that women are more likely to find an ad with a connected appeal to be more persuasive, while an ad with a separated appeal will be more compelling for men (Wang, Bristol, Mowen, & Chakraborty, 2000).

Overall, women are more concerned with equity and have a stronger preference for collective good than do men. Consistent with these findings, I expect that entrepreneurial pitches using civic justifications which emphasize collective welfare in terms of equality and solidarity will draw greater attention of women than men prosocial crowdfunding investors. More formally, I propose the following:

Hypothesis 3.3. Women prosocial investors are more likely than men prosocial investors to be drawn to crowdfunding pitches using civic justifications.

Fame Justification

A robust finding in matters of finance, a domain stereotyped as the preserve of men, is that male investors are more overconfident than female investors (Barber & Odean, 2001; Graham et al., 2002; Hodge, 2003). Women are more likely to perceive themselves as less competent than men in money matters (Graham, Harvey, & Huang, 2009; Prince, 1993). Perhaps this gender difference in levels of confidence prompts men more than women to prefer self-directed learning about investing, and women more than men to rely on others, including family, friends, and experts for learning, information, and advice (Heminway, 2009; Hira & Loibl, 2008; Loibl & Hira, 2006).

Similar gender differences are observed in modeling and herding effects. Women are more likely than men to see others' donating to a charity as a signal of efficacy and as a consequence increase their own giving (Bekkers & Wiepking, 2011; Lincoln, 1977). In fact, such mimicking and herding behaviors in crowdfunding are shown to be strategic and rational based on the observed consequences in terms of lower default rates (Herzenstein, Dholakia, & Andrews, 2011; Zhang & Liu, 2012). Relatedly, although individuals prefer to invest in the familiar (Huberman, 2001; Luciano, Outreville, & Rossi, 2016; Merton, 1987), women's propensity to invest is particularly sensitive to familiarity (Prast, Rossi, Torricelli, & Sansone, 2015).

Applying these findings to prosocial crowdfunding context, I expect that unlike men, women are more likely to back crowdfunding pitches that use fame justifications. While men overestimate the precision of information they have and thus tend to make decisions on whether to support an entrepreneurial campaign more independently (Barber & Odean, 2001), women backers on crowdfunding platforms may rely more on public knowledge and public attention towards an entrepreneurial campaign. Evidence suggests that external influence and stimulations, as well as promotional campaigns on social media, influence the outcomes of crowdfunding campaigns (Lu, Xie, Kong, & Yu, 2014). But if public opinion and, more generally, others' opinion matter more to women than men, then an entrepreneurial pitch that highlights positive impressions it has created on its target audience, and media coverage and attention it has received is more likely to attract female backers. From these arguments, I predict that women prosocial crowdfunding investors are more likely than their male counterparts to find fame justifications appealing. Stated formally:

Hypothesis 3.4. Women prosocial investors are more likely than men prosocial investors to be drawn to crowdfunding pitches using fame justifications.

Market Justification

According to gender stereotypic beliefs, women are perceived to be less competitive than men (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972; Gneezy & Rustichini, 2004). Women who attempt to counteract their stereotypes by presenting themselves as competitive often risk social and economic repercussions (Rudman & Glick, 2001; Rudman & Phelan, 2008). In fact, research suggests that both "nature and nurture" lead women to carry less positive attitudes towards competitiveness than do men (Croson & Gneezy, 2009: 467; Gneezy, Leonard, & List, 2009). For example, women tend to be less competitive in negotiation situations that involve parties communicating with each other to resolve conflicts (see Walters, Stuhlmacher, & Meyer, 1998 for meta-analysis). Women investors, including experts, tend to shy away from competitive behaviors (Beckmann & Menkhoff, 2008). Thus, women are less likely than men to be drawn to market justifications in which actions are motivated by and rationalized in terms of competition (Boltanski & Thévenot, 2006). In contrast, the biosocial theory of gender differences supports the assertion that men have competitive inclinations and that they are more concerned with beating the competition (Wilson & Daly, 1985). Men tend to increase their prosocial behavior more than do women in competitive public settings (Böhm & Regner, 2013). Men also prefer to volunteer for organizations that encourage team competition (Wymer, 2011).

Another reason for the postulated greater appeal of market justifications for men than women is gender differences in the importance placed on monetary value. Drawing on the general finding that women and men possess different material objects and for various reasons (Kleine & Baker, 2004), scholars have proposed several gender differences in motives and emphasis of entrepreneurs (Bird & Brush, 2002), including women's tendency to associate organizational ownership with social value and men's tendency of associating it with economic value (Zellweger

& Astrachan, 2008). In general, women are less influenced by pecuniary motives when investing in new ventures (Burke, van Stel, Hartog, & Ichou, 2014). From these arguments, I expect that women prosocial crowdfunding investors are less likely to be drawn to market justifications than their male counterparts. More formally, I propose the following:

Hypothesis 3.5. Women prosocial investors are less likely than men prosocial investors to be drawn to crowdfunding pitches using market justifications.

Industrial Justification

Perception of the effectiveness and efficiency of an organization influences prosocial behavior directed towards them (Schlegelmilch et al., 1997). Such beliefs increase potential impact, and in turn, enhance the likelihood of charitable giving (Bekkers & Wiepking, 2011). Among donors, those who are more altruistically motivated are particularly likely to decrease giving when they have negative beliefs about the efficacy of charity (Bekkers, 2006). However, prior research suggests that men and women may not accord equal importance to concerns of effectiveness and efficiency. Iacobucci and Ostrom (1993), for instance, found that men are more concerned with the core aspects of service (e.g., quality of dinner served), while women are more concerned with the relational aspects (e.g., friendliness of waiter) when evaluating service encounters. In their evaluations, men tend to factor time, money, and effort expended to acquire a service more than do women (Sharma, Chen, & Luk, 2012). Similarly, in their buying motivations and orientations, men generally place more importance on functional factors, including economy, effectiveness, and efficiency, whereas women emphasize emotional involvement and social-experiential benefits (Dittmar, Long, & Meek, 2004). These findings, combined with the notion that men tend to emphasize objective metrics of success and value more than do women (Cliff

1998; Greene, Hart, & Saparito, 2001), suggest that industrial justifications may be more appealing to men than women.

Other research, however, suggests evidence to the contrary. In a study of gender differences in responses to objective versus subjective advertising claims under low and moderate product risk conditions, Darley and Smith (1995) found that contrary to expectations, men did not respond more favorably to objective than subjective claims. But they found that in low-risk condition, women responded equally favorably to subjective and objective claims, and tended to favor objective claims only under a moderate-risk circumstance. Thus, their study questions the notion that men, owing to their "analytical and logical" as opposed to women's "subjective and intuitive" information processing orientation (p. 42), will respond more favorably than women to industrial justifications that make objective claims.

Consistent with the selectivity model of information processing which characterizes men as relying more on heuristics and women as more comprehensive in their orientation (Brunel & Nelson, 2003; Graham et al., 2002; Meyers-Levy, 1989; Meyers-Levy & Loken, 2015), women investors, in addition to depending on others' opinion, tend to research, understand, and accurately gauge their investments more than do men investors (Heminway, 2008)[2]. Further, unlike male investors with shorter stock holding periods, female investors tend to adopt long-term investment strategies (Maltby & Rutterford, 2006; Talpsepp, 2010). Similarly, research finds that women philanthropists are generally more cautious than men because of their lower disposable

[2] Although men are more evidentiary in their language use than women (see Chapter 4), I argue here that they are less likely than women to base their prosocial investment decisions on industrial criteria. Such differences between language use and actions are not uncommon. For instance, in a study of gender effect of leaders on small firms, Cliff, Langton, and Aldrich (2005) found that while entrepreneurs talk as if they conduct business in gender-stereotypical ways, they found no differences in actual managerial practices and organizational characteristics.

income (Newman, 2000). Compared to men, they prefer a precise explanation of their fund utilization (Braus, 1994). Even among high-net-worth donors, women reported that they are “strategic” about their giving – focusing on and supporting approaches, causes and initiatives that are efficacious (IUPUI, 2018). The notion that women investors tend to engage in investment behaviors that are closer to ‘reasonable investor’ conceptions than male investors (Heminway, 2009) is indicated in entrepreneurship research as well. For instance, Carter and colleagues (2007) found that female bank loan officers were more likely than their male counterparts to pay importance to business plan when evaluating loan applications by entrepreneurs. Male loan officers, however, were more likely to rely on their gut instincts in their lending decisions.

Taken together, I expect that industrial justifications will be more appealing to women than men. Women prosocial crowdfunding investors are hypothesized to more comprehensively evaluate entrepreneurial pitches based on the extent of planning, long-term prospects, technical efficiency, and professional expertise. Conversely, men prosocial crowdfunding investors are less likely to attend to technical and planning cues in crowdfunding pitches. In essence, among potential backers, women may look for and find crowdfunding pitches using industrial justifications more appealing than do men. Stated formally:

Hypothesis 3.6. Women prosocial investors are more likely than men prosocial investors to be drawn to crowdfunding pitches using industrial justifications.

Chapter 7: Methods

A MEASURE OF JUSTIFICATIONS

In extant research, the typical approach to empirically examine the nature of justification used by social actors is to employ a *user-defined dictionary* (Iliev, Dehghani, & Sagi, 2015) built using a list of semantic descriptors originally supplied by Boltanski and Thévenot (2006; e.g., Patriotta et al., 2011). This original set of semantic descriptors is expanded by adding synonyms and other words that are deemed contextually relevant through an inductive reading of sample texts. Some researchers have improved on this approach by asking subject matter experts to rate the extent to which each word captures a particular type of justification (e.g., Richards et al. 2017). Once the indicative sets of words are finalized, the analysis proceeds by computing word count on the sample texts and reporting the relative frequency of each justification type.

However, such an approach has limitations. First, although the original work specifies more than 450 words, previous studies typically use a partial list. There is little substantiation provided for why some semantic descriptors were omitted. This basic approach is problematic especially when some high base rate descriptors are removed. Second, using the semantic descriptors provided by Boltanski and Thévenot (2006) as-is is problematic as some words are indicative of multiple modes of justification. But discarding such ambiguous words may risk losing words that may otherwise be central to a given justification type. Lastly, the manual approach of using synonyms and inductive reading to shortlist additional semantic descriptors is less systematic, and lacks generalizability and scalability to research contexts involving larger sample texts.

In sum, there is a lack of evidence of reliability and validity in content analysis strategies used in existing studies to measure the different justifications. In this dissertation, I set to develop a more systematic text analytic approach to track the modes of justification used in crowdfunding pitches by entrepreneurs.

Justification Items

Procedure

For developing the justification dictionary, I employed a natural language processing (NLP) approach called *fastText* (Bojanowski, Grave, Joulin, & Mikolov, 2016). This recently introduced computationally-effective predictive model attempts to capture a large number of precise syntactic and semantic word relationships by learning high-quality distributed vector representations of words – called the *word embeddings* - from large corpora of unstructured text data (Mikolov, Yih, & Zweig, 2013). At the core of fastText is the distribution hypothesis, which states that words that occur in similar contexts tend to have similar meanings (Sahlgren, 2008). fastText and similar word embeddings approaches have been widely used in NLP applications to obtain pre-trained representations and distributional information about words in corpora such as Wikipedia, news collections, blogs, and tweets (e.g., Mikolov, Grave, Bojanowski, Puhrsch, & Joulin, 2017; Yang, Macdonald, & Ounis, 2016). Because word embeddings are in essence numerical representations of words using vectors of several hundred dimensions (most frequently, 300 dimensions), they are beneficial for capturing the degree of similarities between words, the probability of occurrence of words, and the most likely meaning of a word in a given context. I utilized fastText to generate words that are useful indicators of various justification types.

As a first step, I created custom word embeddings using fastText on large text corpora specially assembled for justification measure development. Gensim, a popular vector space and topic modeling library in Python, was used for creating word embeddings (Řehůřek & Sojka, 2010). The words in the corpora were lemmatized, i.e., reduced to their root forms, before obtaining the word vectors. Lemmatization and stemming are two well-known linguistic techniques used to ensure that variants of words are not left out when text is retrieved (Manning, Raghavan, & Schütze, 2009). Both the approaches involve some form of reducing the various inflectional forms of words (e.g., 'organize' and 'organizes') and derivationally related words (e.g., 'creative' and 'creator') to a common base (i.e., a dictionary form of the word). Whereas stemming uses a rather crude heuristic process based on different algorithms to chop off the ends of words (e.g., 'operating' and 'operational' are reduced to 'oper'), lemmatization involves reducing a word to its base forms using a vocabulary and morphological analysis (e.g., 'operating' and 'operational' are reduced to 'operate' and 'operational' respectively). The relative advantage of lemmatization over stemming is precision, often providing better results (Balakrishnan & Lloyd-Yemoh, 2014).

Next, I obtained a list of semantic descriptors proposed by Boltanski and Thévenot (2006) for each of the six modes of justification (see Table 2 for a list of words selected under each justification category). The list of seed words was based on both the semantic descriptors specified in italics in the main text as well as those specified in the side columns of Boltanski and Thévenot's (2006) chapter 6 (pg. 159-211). Third, using these seed words along with the pre-trained word vectors from the first step a larger candidate list of semantic descriptors for each of the six justification types was created. Cosine similarity, a well-known and efficient similarity measure for word vector models based on the cosine of the angle between two vectors (Gomaa & Fahmy, 2013; Mikolov et al., 2013), was used to obtain words similar to the justification seed words. Python's *gensim* toolkit was used for this purpose (Řehůřek & Sojka, 2010). Fourth, the candidate words generated were manually annotated for their relevance to the corresponding justification categories. A word was considered relevant only if it appeared in the original works of Boltanski and Thévenot (2006), was judged as a close synonym or was considered semantically related to the justification category under consideration. Finally, the above steps were repeated in entirety to rule out any oversights.

Sample

Both the word count and predictive algorithms employed for the dictionary development are sensitive to the size, genre, style, and overarching themes of the underlying corpus. Because the purpose of this study was to construct a dictionary that is valid, reliable and generalizable, I utilized large and diverse custom-built corpora. The empirical setting consists of a novel, hand-collected publicly available data of over 22 million text units[3] from following eight genres: speeches, blogs, tweets, pitches, prepared statements, media articles, debates, and quotes. The *lemmatized* corpora and seed words were inputs to the fastText model.

Results

After reducing the words generated from the word-embeddings technique to only those words that had the most significant theoretical alignment with the justification typology proposed by Boltanski and Thévenot (2006), a final list of 4855 words was obtained.

Exploratory Factor Analysis

I next validated the dictionary developed using exploratory factor analysis (EFA). In assessing the convergent and discriminant validates of the six justification modes, I also included two sentiment measures (negative and positive sentiment). An eight-factor structure from an EFA

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[3] A *text unit* is a single segment of text for a given source or author that can be considered semantically independent. For example, in the case of blogs, text unit is a single blog post; similarly, for articles/speeches/earnings call, text unit is a single article/speech/earnings call; and for tweets, text unit is a single tweet.

would attest to the reliability and validity of the dictionary-based measure of justification.

Sample

For EFA, I used data from *GlobalGiving*, one of the largest global donation-based crowdfunding community connecting nonprofits, donors, and companies in nearly every country (GlobalGiving, 2019). I used the universe of projects on GlobalGiving from its inception in 2002 to 2017. The data was obtained using an application programming interface (API) provided by GlobalGiving. The API allows fetching information about all projects and organizations that initiated those projects. The key field of relevance for construct development in this study is the pitch text. The fund seeker is required to provide a summary of the project and describe the challenge the project aims to address, the proposed solution, and the anticipated long-term impact of implementing the solution. Using GlobalGiving's API, four text fields (summary, challenge, solution, and long-term impact) were fetched, in addition to other project and organizational information. The final dataset comprised of 21,457 projects, representing a total of $831.3 million in funding sought and $183.2 million in successful financing.

Procedure

Automated text analysis has evolved into one of the most objective approaches to linguistic data (Iliev et al., 2015). It involves creating a list of words that best capture the latent theoretical construct of interest. A sample of texts to be analyzed is searched for these words, and the number of hits is used as a measure of the extent to which the text is related to the specific theoretical construct. The degree of different justification modes and sentiments in a pitch was computed using a frequency count of words (divided by the length of pitch) in the pitch text that corresponds to the different dictionary categories.

The words in the pitch texts were lemmatized before running frequency analysis. The *R* (version 3.4.4; R Core Team, 2016) packages *quanteda* (Benoit et al., 2018) and *sentimentanalysis* (Feuerriegel & Proellochs, 2018) were used for obtaining frequency counts.

Measures. For measuring justifications, the dictionary developed in this dissertation was used, whereas, for sentiments, the general-purpose dictionary with a list of positive and negative words developed by Harvard University was employed (Harvard-IV dictionary; Stone, Dunphy, & Smith, 1966). Designed based on the cognitive psychology of language, this sentiment dictionary consists of 1915 positive words and 2291 negative words (Jurafsky & Martin, 2014).

EFA. One approach to establishing reliability, exploring latent factors, and validating a dictionary-based measure is to use an item parceling technique (Little, Cunningham, Shahar, & Widaman, 2002). In this approach, the words identified for each dictionary are randomly assigned (without replacement) to one of the predetermined numbers of parcel items (three or more). These parcels are then analyzed using standard EFA approaches. Using parcels over individual words as observed variables present several advantages when exploring factor solutions. Compared with single words, parceled items are not only more parsimonious, but also less likely to violate distributional assumptions, lead to spurious correlations, and result in cross-loadings (Little et al., 2002). Parceled items also have higher chances of leading to a "just-identified" latent variable and stable solutions (2002: 162). Additionally, a random assignment of words is more likely to lead to item parcels that contain roughly equal common factor variance.

The unique psychometric of language, however, presents challenges to using either single words or an item parceling approach (Pennebaker, Boyd, Jordan, & Blackburn, 2015). As scholars have noted: "Once you say something, you generally don't need to say it again in the same paragraph or essay. The nature of discourse, then, is we usually say something and then move on to the next topic...It is important, then, to understand that acceptable boundaries for natural language reliability coefficients are lower than those commonly seen elsewhere in psychological tests" (Pennebaker et al., 2015: p. 7,8). Thus, it is likely that item parcels, even with randomly assigned words, may lead to unequal common factor variance.

In this study, I used an alternative approach to establish convergent and discriminant validities of dictionary-based measure. Rather than parcel words into items, I collected multiple texts for each individual (or organization). I identified individuals (or organizations) that pitched for multiple projects (k=5) on the GlobalGiving Platform. This yielded N=212 entities. I computed the justification and sentiment measures for five pitches for each of these 212 entities.

For assessing the number of factors to retain in the EFA, a parallel analysis was conducted. As suggested by scholars, this Monte Carlo simulation technique for determining the number of factors to retain in an EFA is superior to other methods such as the Scree test or the Kaiser's eigenvalue-greater-than-one rule (Hayton, Allen, & Scarpello, 2004; Ledesma & Valero-Mora, 2007). Using the number of factors obtained from parallel analysis, principle axes factor extraction method with promax rotation and squared multiple correlations (SMCs) for communality estimates is used. All EFA results were obtained using *R*'s (version 3.4.4; R Core Team, 2016) *psych* package (Revelle, 2018).

Results

The Cronbach alphas for justification measures (across five time-points) were .685 for inspired justification, .768 for domestic, .732 for civic, .743 for fame, .755 for market, and .687 for industrial. For the sentiment measures, the alphas were .570 for positive sentiments and .572 for negative sentiments. The alpha levels for justifications suggest that not only do the individuals/organizations tend to justify similarly across contexts and times but also that the underlying justification measures are reliable. Parallel analysis of 40 items – five items each for positive sentiments, negative sentiments, and six justification modes - using simulated data suggested eight factors. The following factor extraction method with this target number of factors yielded a block pattern with eight factors (see Table 3).

Confirmatory Factor Analysis

Sample and Procedure

Confirmatory factor analysis (CFA) is conducted using a sample of pitches from DonorsChoose, a crowdfunding platform that allows individuals to donate to public school classroom projects. This donation-based platform has helped teachers at 78 percent of public schools in the US to raise more than $6.9 million from nearly 3.1 million donors (DonorsChoose, 2019). DonorsChoose makes its data publicly available for research purposes. This open data comprises of over 1.2 million crowdfunding pitches. In an approach similar to EFA, individuals who have multiple pitches (k=5) are identified. The sample used for CFA comprised of N=12,592 individuals. Justification measures (frequency counts) were obtained for all five pitches for each of these individuals. To establish the factor structure and discriminant validity among the justification modes, *R*'s (version 3.4.4; R Core Team, 2016) *lavaan* package (version 0.5-23; Rosseel, 2012) was used. Latent factors were standardized, allowing for free estimation of all factor loadings.

Results

The CFA replicated the EFA in that each of the justification items loaded highly on its intended facet. For the target model with six factors, the comparative fit index (CFI) was .949, Non-normed Fit Index or Tucker-Lewis Index (TLI) was .943, and $\chi 2$ = 2609.62 (df=390). This six-factor model performed significantly better (at $p < .001$) than the under-factor models. Although the over factor model with seven factors performed marginally better than the target factor model, the six-factor model with a better TLI was retained (see Table 4). Taken together, these results are consistent with Boltanski and Thévenot's (2006) characterization of justification as comprising of six distinct types.

TESTING THE HYPOTHESIZED EFFECTS

To empirically investigate the proposed theoretical models (see Figures 1-4), I draw on samples from Kiva (kiva.org), a prosocial lending-based crowdfunding platform. Since its founding in 2005, Kiva has facilitated over $1.14 billion in loans to 2.8 million low-income entrepreneurs and students through 1.7 million lenders (Kiva, 2019). Data from Kiva has been used in prior research in entrepreneurship (e.g., Allison et al., 2013, 2015; Moss et al., 2017) and other disciplines (e.g., Galak et al., 2011; Ly & Mason, 2012). Following these studies, I use Kiva APIs (build.kiva.org) to acquire a dataset of nearly 1.3 million crowdfunding campaigns. This sample comprised of entrepreneurial pitches from 91 countries. The size of the loan sought by entrepreneurs ranged from as little as the US $25 to $100,000 (mean=829.3; standard deviation=1046.92). On Kiva, entrepreneurs can seek loans either as an individual borrower or as a group borrower. Group loans comprised of 14.7 percent of total loans.

For investigating the specific hypotheses proposed, different sample restrictions were applied in each of the studies. However, across all the three studies, the sample was restricted to seven sectors (Arts, Clothing, Food, Manufacturing, Retail, Services, and Wholesale) to focus on entrepreneurs seeking capital. The other eight sectors (Personal Use, Agriculture, Health, Transportation, Housing, Construction, Education, and Entertainment) were excluded from the analysis as the loan requests in these sectors were less likely to be made for entrepreneurial and business purposes. This inference was based on reading sample pitch texts as well as Kiva's promotional statements. Under the Education category, for example, Kiva states: "Help underprivileged and marginalized students attend vocational school, university or other higher education institutions and give them a chance to reach their full potential" (Kiva, 2019). Similarly, under Agriculture section of its website, Kiva states: "Farmers face many challenges, including unpredictable weather and market prices, and are often forced to choose between investing in their crops and fulfilling basic needs for their families. Kiva works to provide farmers with loans that match their unique needs, and your support keeps their crops growing and their livelihoods stable" (Kiva, 2019).

Study 1. Entrepreneur's Gender and Justifications Used

Sample

For this study, several sample restrictions had to be applied to the gathered Kiva data. In most of the countries, Kiva works with field partners such as microfinance institutions and nonprofit organizations to reach out to borrowers and administer loans. Field partners may be also involved in writing and translating crowdfunding pitch text for the borrowers. Furthermore, Kiva recruits volunteers who help with basic editing and translation of the pitches. Because the specific purpose of the current study was to understand the effect that gender of individual borrowers has on their proclivities to use specific justifications, crowdfunding pitches made by teams were excluded. Further, all field partner facilitated crowdfunding campaigns were excluded. Lastly, the data was restricted to crowdfunding pitches made in the US with the assumption that the individuals seeking to raise capital were most likely to be English-speaking and that their campaign texts were not likely to be substantially modified in content by Kiva volunteers in the review and editing process. The final sample included 3501 crowdfunding pitches.

Variables

Dependent variables. The extent of different modes of justification used by entrepreneurs in their pitches was measured using the dictionary developed earlier. Automated text analysis was conducted to obtain the total number of words in the lemmatized pitch texts that match the words in each of the six justification dictionary categories. The *R* (version 3.4.4; R Core Team, 2016) package *quanteda* was used to obtain these raw frequency counts.

Independent variable. I obtain gender of the entrepreneur seeking crowdfunding from Kiva API. The gender was coded as a dummy variable: female (1); and male (0).

Control variables. Following prior research using Kiva data (e.g., Moss et al., 2018), I controlled for the funding amount requested as well as random effects of seven industry sectors. The magnitude of funding requested may influence entrepreneurs' choice of justification used. Similarly, industry sector may make the use of some justifications more salient than others (e.g., inspired justifications in Arts and market justifications in Retail). I also included a control for pitch length measured as the total number of words in the pitches because longer pitches may allow for providing additional information to prospective investors. While word count was obtained using R's *quanteda* (Benoit et al., 2018), information about the sector and funding amount requested in US dollars were made available through Kiva APIs.

Analysis and Results

I used negative binomial regression to model the nonnegative, count nature of the justification measure. Negative binomial model was preferred over the more common Poisson model to address the possibilities of overdispersion - i.e., variance exceeding the mean significantly - in the dependent variable. In fact, tests of overdispersion (using the *overdisp* function in *R*'s *sjstats* package; Lüdecke, 2017) on the fitted Poisson models for each of the six dependent variables were significant. The dispersion ratios ranged from 1.791 ($p < .001$) for domestic justifications to 2.554 ($p < .001$) for market justifications. Negative binomial models are particularly well suited to accommodate overdispersion (Hausman, Hall, & Griliches, 1984) and have been used previously in organizational studies to address such issues (e.g., Mcfadyen & Cannella, 2004; Miller, Fern, & Cardinal, 2007; Rosenkopf & Nerkar, 2001). Further, to account for the groupings of data by industry sector, a mixed (or multilevel) model was used (Gelman & Hill, 2006). I fitted the generalized linear mixed-effects model for the negative binomial family using R's glmmTMB package (Generalized Linear Mixed Models using Template Model Builder; Berg et al., 2017). The control variable for varying length of a pitch was included as an exposure variable (Cameron & Trivedi, 2013). Pitch length was incorporated as a logged variable with the use of offset option in *glmmTMB*. The continuous predictor for funding amount was re-scaled and centered in the fitted mixed model.

Descriptive statistics and correlations for the variables used in this study are presented in Table 5. Means and standard deviations of justifications by gender are reported in Table 6. The results of negative binomial mixed models for each of the six justifications outcome variable are reported in Table 7. In Hypothesis 1.1, I argued that women entrepreneurs would be more likely to use inspired justifications than men entrepreneurs. The effect of gender was in the direction predicted and significant ($p < .01$). Thus, this hypothesis was supported. In keeping with Hypothesis 1.2's prediction that women entrepreneurs will be more likely to use domestic justifications than men, the coefficient of the female entrepreneur was positive and significant ($p < .001$). I found contrasting findings for Hypothesis 1.3. Women were significantly less likely than men to use civic justifications ($p < .001$). Next, I reasoned that women would be less likely than men to use fame justifications. However, as reported, the gender coefficient was not significant, failing to support Hypothesis 1.4. In the following hypothesis, I proposed that women entrepreneurs will be less likely to use to market justifications than men. The coefficient for female entrepreneur was negative and significant at $p < .05$ indicating support Hypothesis 1.5. Similarly, I argued that women would be less likely to use industrial justifications than men. As reported, the coefficient for female entrepreneur was negative and significant ($p < .001$), supporting Hypothesis 1.6.

Given the nonlinear count regression model used, effect sizes were calculated using the approach suggested by Coxe (2018). The effect sizes (standardized mean difference) were as follows: .01 (inspired); .01 (domestic); - .01 (civic); - .01 (market); and - .02 (industrial). Caution must be exercised in the accuracy of these Cohen's *d* equivalent effect size estimates as the procedure does not control for level-2 country and sector memberships (Lorah, 2018).

Supplementary Analyses

To further validate some of the hypothesized effects, I utilized validated dictionaries for different categories provided by Linguistics Inquiry and Word Count (LIWC) software (Tausczik & Pennebaker, 2010). Some prior research in crowdfunding has utilized specific LIWC categories to assess the relationship between narratives in pitches and fundraising success indicators (e.g., Moss et al., 2018). In fact, scholars have also measured gender differences in specific LIWC categories (e.g., Gorbatai & Nelson, 2015).

One of the LIWC categories, *money*, is conceptually very related to emphasis in market justifications. This category comprises of 226 terms such as *audit*, *cash* and *owe* (Pennebaker et al., 2015). As conjectured, this category was highly correlated with market justifications in the current Kiva data sample ($r = .887$; $p < .001$). A negative binomial mixed model was fitted to examine the effect of gender on the use of money terms. As expected, the coefficient of the female entrepreneur was negative and significant ($B= -.054, p < .05$), consistent with Hypothesis 5 for market justifications.

Similarly, the terms used under the LIWC categories *social processes*, *family*, *friend*, *home*, and *affiliation* (Pennebaker et al., 2015) are conceptually related to the emphasis in domestic justifications. A composite score of these categories was indeed significantly correlated with domestic justifications ($r= .480, p < .001$). A negative binomial mixed model for this composite LIWC category was fitted to examine the effect of gender. As expected, the coefficient of the female entrepreneur was positive and significant ($B= .116, p < .001$), consistent with Hypothesis 2 for domestic justifications.

Along these lines, the LIWC category for *positive emotion* (Pennebaker et al., 2015) is conceptually relevant to the primacy of passion in inspired justifications. In keeping with this expectation, positive emotions were significantly related to inspired justifications ($r = .47, p < .001$). In the negative binomial mixed model for positive emotions, the coefficient of the female entrepreneur was positive and significant ($B= .130, p < .001$). Similarly, because anxiety and doubts are characteristic manifestations in inspired justification (Boltanski & Thévenot, 2006), the association between gender and LIWC category for *anxiety* (Pennebaker et al., 2015) was explored. Although anxiety was not significantly correlated with inspired justifications, the results of the negative binomial model predicting gender effect on anxiety were as expected. There was more anxiety related vocabulary in crowdfunding pitches of women than men ($B= .364, p < .001$). An additional supplementary analysis was undertaken to investigate gender effects on inspired justifications with both positive emotions and anxiety as controls in the negative binomial mixed model. With both the terms included, the coefficient of the female entrepreneur was insignificant ($B= -.020, p = .268$).

While the LIWC terms under the *numbers* category (e.g., second, thousand) and *quantifiers* category (e.g., few, many, much) seemed conceptually relevant (Pennebaker et al., 2015) to industrial, they were negatively correlated with industrial justifications in this Kiva data sample. Further, no LIWC categories appeared closely related to civic and fame justifications. So, no additional analysis for these three justifications using LIWC categories could be conducted.

In summary, evidence reported here suggests that women were more likely than men to use inspired and domestic justifications, and less likely than men to use market and industrial justifications in their crowdfunding pitches. While these are in line with predictions, there was no significant gender difference in the use of fame justification. Further, contrary to expectations, men entrepreneurs relied upon civic justifications more than did women entrepreneurs.

Study 2. Gender Differences in Relative Effectiveness of Justifications Used

Sample

As in Study 1, I draw on samples from Kiva (kiva.org), a prosocial lending-based crowdfunding platform, to empirically investigate the proposed theoretical model (see Figure 2 and Figure 3). Besides restricting the sample to seven sectors, only campaigns run by solo entrepreneurs were used for analysis. The final sample comprised of 652,432 campaigns.

Variables

Dependent variable. Crowdfunding success was measured as the speed of funding, a continuous variable. As suggested in prior research, the time taken to funding has important consequences for entrepreneurs and is a reasonable indicator of how attractive a crowdfunding campaign is to investors (e.g., Allison et al., 2013, 2015). For this study, the time to obtain funding was observed in days. The average time it took to raise full funding was 6.8 days (with a standard deviation of 10.09). The speed of funding was operationalized as the logarithmic transformation of the inverse of time taken to funding.

Independent variables. The extent of different modes of justification used by entrepreneurs in their pitches is measured using the developed dictionary. As in Study 1, automated text analysis was conducted to obtain the total number of words in the lemmatized pitch texts that match the words in each of the six justification dictionary categories. The *R* (version 3.4.4; R Core Team, 2016) package *quanteda* was used to obtain these raw frequency counts. The justification measures were converted to percentages by dividing the raw counts by the total number of words in the pitch. I obtained the gender of entrepreneur from Kiva API (female entrepreneur dummy variable was coded 1=female, and 0=male).

Control variables. Following previous research on crowdfunding (e.g., Allison et al., 2013, 2015; Galak et al., 2011; Moss et al., 2017), *country* and *sector* were controlled using dummy codes. Because entrepreneurs seeking funding work through Kiva designated field partners, the *risk rating* of partner was also be used as a control (5-star risk rating in 0.5 increments with lower values indicating higher risk). For both the campaigns run by entrepreneurs without a partner (i.e., direct loans) and for cases where a partner has no rating provided (missing data or not rated at the time of data collection), the risk rating variable was coded as “0.0”. This was based on the Kiva’s note to the investors that in such cases the highest level of risk should be assumed (Kiva, 2019). Further, besides *pitch length* (number of words), other controls for loss liabilities (nonpayment and currency exchange) used in previous research on Kiva were included.

Analysis and Results

Ordinary least squares (OLS) regression was used to test and estimate the hypothesized effects. Means, standard deviations, and correlations for the variables are presented in Table 8. Table 9 and Table 10 provide the OLS regression results for the dependent, crowdfunding campaign success measure: speed of funding. To address the heteroskedasticity issue, robust standard estimates were obtained and reported in the tables using R's *sandwich* package (Zeileis, Lumley, Berger, & Graham, 2017) for all models.

Hypothesis 2.1 predicted that women entrepreneurs would be more successful in prosocial crowdfunding than men entrepreneurs. As shown in Table 9, control variables were included in Model 0 and entrepreneur gender in Model 1. The coefficient of female entrepreneur (female=1; male=0) was positive and statistically significant ($B= .660$, $p < .001$). Thus, the hypothesized main effect of gender was supported.

In Hypothesis 2.2, I proposed that emancipatory justifications (i.e., inspired, market, and civic justifications) are likely to have positive effects and non-emancipatory justifications (i.e., domestic, fame, and industrial justifications) are likely to have negative effects on funding outcomes in prosocial crowdfunding context. I created two composite measures of justification: (1) emancipatory justification based on sum of inspired, market, and civic justification scores; and (2) non-emancipatory justification based on the sum of domestic, fame, and industrial justification scores. As shown in Table 9, control variables were included in Model 0, entrepreneur gender in Model 1, and justification composite measures in Model 2. The results of OLS regression analysis for the speed of funding indicated support for the underlying predictions. As expected, the coefficient of emancipatory justifications was positive and significant ($B= .009$; $p < .001$), whereas the coefficient of non-emancipatory justifications was negative and significant ($B= -.007$; $p < .001$). Thus, the hypothesized main effects of emancipatory and non-emancipatory justifications on crowdfunding outcomes were supported.

Hypotheses 2.3-2.5 proposed gender differences in the effectiveness of emancipatory justifications. The results of OLS regression related to these hypotheses are reported in Table 10.

All control variables were entered in Model 0. Entrepreneur's gender was entered in Model 1, the six justification measures in Model 2, and the hypothesized three interaction terms of gender with the inspired, market, and civic justifications in Model 3. The results suggest that gender interactions with each of the three justifications are significant. To assess whether the effects were in the predicted direction, interaction plots were obtained, and simple slope tests were conducted (see Figures 5a-c). Evidence suggests full support for the predicted gender differences in Hypotheses 2.3 and 2.4. The predicted gender difference for inspired justification was only partially supported (Hypothesis 2.2). As predicted, the slope for men was negative and significant ($B = -.03$, $p < .001$). But for women entrepreneurs, although the slope was positive, it reached statistical significance only at a higher cut-off ($B = .01$, $p < .05$).

Supplementary Analyses

I conducted additional analyses to demonstrate the robustness of results. First, I entered the above composite measure of non-emancipatory justification in place of domestic, fame, and industrial justifications. I also added the interaction term of non-emancipatory justification with gender. The interaction effects for the three hypothesized justifications - inspired, market, and civic - matched the OLS regression results obtained in Table 10 in terms of sign and significance. The interaction plots were similar in directions as well for women and men entrepreneurs. The coefficient of the interaction term for gender and non-emancipatory justification only reached significance at lower levels ($B = .006$; $p < .05$).

Second, I examined the interaction effects of gender with the composite measures of emancipatory and non-emancipatory justifications. As shown in Model 3 in Table 9, the interaction of gender and emancipatory justification was significant ($B = .037$, $p < .001$), but the interaction of gender and non-emancipatory justification was non-significant ($B = .002$, $p < .001$).

Next, I separately tested the interaction effects of gender with each of the non-emancipatory justifications: domestic, fame, and industrial. The interaction effects for the three hypothesized emancipatory justifications (inspired, market, and civic) matched the OLS regression results obtained in Table 10 in terms of sign and significance. The interaction plots were similar in directions as well for women and men entrepreneurs. With respect to non-emancipatory justifications, the gender interaction term with industrial justifications was nonsignificant, whereas that with fame justification was significant (B= -.063, $p < .001$). Simple slope analysis suggested that slope was insignificant for men entrepreneurs, but significant for women entrepreneurs (B= -.08; $p < .001$). This suggests that the use of fame justifications negatively affects the speed of raising funds for women entrepreneurs. The gender interaction term with domestic justification was significant as well (B= .032, $p < .001$). Simple slope analysis suggests that the use of domestic justification has a positive effect on the speed of obtaining funding for women entrepreneurs (B= .01, $p < .001$), and a negative effect for men entrepreneurs (B= -.02, $p < .001$). I address these results briefly in the Discussion section.

Third, to further validate some of the hypothesized effects, I utilized validated dictionaries for different categories provided by LIWC software (Tausczik & Pennebaker, 2010). As noted earlier, the *money* category in LIWC conceptually aligns with market justifications. In place of market justification, I entered scores on money category. The interaction term coefficient and interaction plot matched those obtained with market justification term. Next, similar to Study 1, the LIWC category for *positive emotion* (Pennebaker et al., 2015) was used in place of inspired justification. Market and civic justifications were left as before in the models. However, the interaction term for positive emotion and gender failed to reach significance.

Study 3. Investor's Gender and Justifications Used

Sample

As in Study 1 and 2, I draw on samples from Kiva (kiva.org), a prosocial lending-based crowdfunding platform, to empirically investigate the proposed theoretical model (see Figure 4). For this study, all investments made in the seven sectors (Arts, Clothing, Food, Manufacturing, Retail, Services, and Wholesale) by a random sample of 38,907 investors (more details about the sample of investors below) was obtained. This resulted in 817,714 investments made towards 382,653 crowdfunding campaigns. After removing the investments made towards campaigns with no data on pitch text, I was left with a final sample of 779,846 investments.

Variables

Dependent variables. As in Study 1, the extent of different modes of justification used by entrepreneurs in their pitches is measured using the dictionary developed earlier. Automated text analysis was conducted to obtain the total number of words in the lemmatized pitch texts that match the words in each of the six justification dictionary categories. The *R* (version 3.4.4; R Core Team, 2016) package *quanteda* was used to obtain these raw frequency counts.

Independent variable. The gender of investors is not made public by Kiva. However, their names are made available through their APIs. I use the names of investors to infer their gender. Prior studies on crowdfunding (e.g., Greenberg & Mollick, 2017; McGuire, 2016) have similarly obtained gender based on names using name-to-gender inference services such as genderize.io, gender-API, NameAPI, NamSor and Python package gender-guesser, to fetch gender information based on first names. In this study, I use gender-API, a popular service that provides gender classification information given the first names of individuals. This tool estimates the likely gender based on a carefully built database of over 2,103,219 distinct names across 178 countries

(Gender-API, 2019). A recent benchmark study of name-to-gender services suggests that gender-API typically provides the best results (Santamaría & Mihaljević, 2018). In fact, several studies across disciplines have used gender-API to predict gender based on names (e.g., Caplar, Tacchella, & Birrer, 2017; Nielsen, 2017; Nielsen, Andersen, Schiebinger, & Schneider, 2017; Thelwall, 2018).

Gender-API provides an accuracy value ranging from 0 to 100 for the predicted gender. A value of 100 indicates that inferred gender is 100 percent reliable. While prior studies have used a probability cutoff estimate of .90 (e.g., Nielsen, 2017), in this study, I use a higher reliability cutoff. I excluded all investors for whom the gender accuracy was below 95 percent. Investor gender was coded as 1 for female and 0 for male.

Control variables. Following prior studies (e.g., Allison et al., 2015; Anglin, Wolfe, et al., 2018; Anglin, Short, et al., 2018; Moss et al., 2015, 2018), I controlled for following variables that influence the probability of supporting a campaign: funding amount requested (in US dollars); number of members in the team requesting funding; pitch length (total number of words in the pitches); partner rating (a value ranging from 0 to 4.5, with smaller values indicating higher risk); industry sector (7 distinct values); country (87 distinct values). No information about the amount funded by an investor for a campaign was available for control purposes. Further, since the use of different justifications may be correlated with each other, the extent of use of other five justifications besides the one modeled as an outcome variable was controlled for. While word count based controls were obtained using R's *quanteda* (Benoit et al., 2018), data for other variables were collected using Kiva APIs.

Analysis and Results

Capturing the gender effects of the various types of justifications on investors requires caution because of the nonindependence of observations. One approach to analyze gender differences in investors preferences is to use proportion of female (or male) investors in a campaign as the dependent variable and the six types of justifications as predictors. However, such a model would be misspecified as it fails to account for the fact that investors may back multiple campaigns. In the current sample, investors (n=38,907) backed 21 campaigns on an average. To mitigate the problems of this nonindependence, I used a mixed effects model that accounts for the groupings of observations by an investor, as well as by sector and country (Gelman & Hill, 2006). The six outcome variables of interest in this case are the various types of justifications hypothesized, with the gender of the investor as the fixed effect (along with other control variables). A more appropriate model is to estimate the cross-level effects of campaigns as well because each campaign attracts multiple investors. However, the regression model with random effects of campaigns failed to converge. But, the exclusion of campaign random effects may not be hugely problematic as on an average each campaign in this dataset had 2.14 investors (n=382,653 unique campaigns in the current sample). As one rule of thumb suggests, a minimum of 10 observations per group is useful to accurately estimate the random parts (Hox, 2002).

As in Study 1, I used negative binomial regression to model the nonnegative, count nature of the justification measure and address the problems of overdispersion (Hausman, Hall, & Griliches, 1984). I fitted the generalized linear mixed-effects model for the negative binomial family using R's glmmTMB package (Berg et al., 2017). The control variable for varying length of the pitch was included as an exposure variable (Cameron & Trivedi, 2013). Pitch length was incorporated as a logged variable with the use of offset option in glmmTMB. All continuous predictors were re-scaled and centered in the fitted mixed model.

Descriptive statistics and correlations for the variables used in this study are presented in

Table 11. Means and standard deviations of justifications by gender are reported in Table 12. The results of negative binomial mixed models for each of the six justifications outcome variable are reported in Table 13. In Hypothesis 3.1, I argued that women investors are less likely than men entrepreneurs to be drawn to inspired justifications. Although the coefficient for female investor was negative, it was only significant at $p < .10$, thus indicating only partial support for the hypothesis. In the following hypothesis, I reasoned that women investors would be more likely than men investors to find domestic justifications appealing. However, as reported, the gender coefficient was not significant, failing to support Hypothesis 3.2. Next, I found contrasting findings for Hypothesis 3.3. Women investors were significantly less likely than women investors to be drawn to civic justifications ($p < .01$). Hypothesis 3.4 proposed that women investors are more likely than men investors to be attracted to fame justifications. However, the coefficient of female investor was not significant, failing to support the hypothesis. In the following hypothesis, I proposed that women investors will be less likely than men investors to find market justifications appealing. The coefficient for the female investor was negative and significant at $p < .001$ indicating support for Hypothesis 3.5. Similarly, I argued that women would be more likely to use industrial justifications than men. As reported, the coefficient for the female investor was not significant, although in the predicted positive direction. Thus, Hypothesis 3.6 for industrial justification was not supported.

Similar to Study 1, effect sizes were calculated using the approach suggested by Coxe (2018) to account for the count nature of the dependent variable. The effect size (standardized mean difference) for market justification was .001. However, caution must be exercised in the accuracy of the effect size estimate as this Cohen's *d* equivalent measure does not account for level-2 membership (investors, country, and sector) and associated covariates (Lorah, 2018).

Chapter 8: Discussion

SUMMARY OF CENTRAL FINDINGS

The first study of this dissertation was motivated by the desire to test the less explored effect of entrepreneur gender on the use of symbolic actions. I predicted that compared to men entrepreneurs, women entrepreneurs would be 1) more likely to use inspired, domestic, and civic justifications; and 2) less likely to use fame, market, and industrial justifications. Overall, the analysis suggests mixed support for the hypotheses as indicated by statistically significant effects of gender in most cases (although of negligible effect sizes as per Cohen's, 1977 benchmarks). As hypothesized, women entrepreneurs were more likely than men entrepreneurs to use inspired and domestic justifications, and less likely than their male counterparts to use market and industrial justifications. In contrast, women and men did not differ significantly in their use of fame justifications. The more surprising finding relates to gender differences in the use of civic justifications. Evidence reported in Study 1 suggests that women entrepreneurs used civic justifications less than did their counterparts in the sample.

The finding on gender differences in the use of civic justifications is inconsistent with the dominant argument based on women's more significant concerns for collective welfare as compared to men. However, the literature on political behaviors and collective action provides useful conceptual entry points to understand the observed pattern. In civic justifications, according to Boltanski and Thévenot (2006), legitimacy and worthiness are established by foregrounding political actions aimed at collective interests. Individuals using civic justifications "attain worth because they are naturally *political*" (p. 187; italics in original). Perceptions of legitimacy in a civic justification depends on "capacity for collective action" as manifested, for example, in the abilities to “launch *appeals*, debate democratically, pursue *discussions*, *publicize* their *policies*, inform, and, in order to be *heard*, *multiply explanations* as much as possible” (p. 191-192; italics in original). There are reasons to believe that women, despite their greater emphasis on values of collective welfare (Eagly et al., 2004) and their equal capacity for collective actions (Karpowitz & Mendelberg, 2014), may be less likely to use civic justifications. As research has shown, women tend to participate somewhat less in political activities than men (Desposato & Norrander, 2009; Junn, 2007; Preston, Kobayashi, & Man, 2006; Verba, Burns, & Schlozman, 1997; Welch, 1977). This lag in participation is even found in advanced countries and in online civic participation as well (Fuller, 2004). The gender gap in active participation becomes pronounced when considering costly political activities such as making time or monetary contributions to campaigns, participating in demonstrations and protests, and serving on local bodies to address community problems (Burns, Schlozman, & Verba, 2001; Cassese & Holman, 2016). Compared to men, women tend to engage more in private political actions such as signing a petition, whereas men are more likely than women to engage in collective political actions such as participating in a rally (Coffé & Bolzendahl, 2010). Women’s representation in deliberative civic settings, as Karpowitz and Mendelberg (2014) describe in their book, *The Silent Sex: Gender, Deliberation, and Institutions*, has been “wallowing in the backwaters” (p. 14). They argue that this gap could be explained by the stereotypical association of active political and civic participation with masculinity. As they observe:

> “While women are now better educated and more civically experienced than men, they remain the less authoritative, and therefore relatively ‘silent,’ gender in public affairs. Women have plenty to say in formal meetings, but they do not say it as often as men do, because they have been motivated to be the followers” (p. 34).

Drawing from this prior work, it can be conjectured that women are less likely than men to be associated with entrepreneurial activities in the civic and political spheres emphasizing collective actions to address issues of welfare, and consequently less likely to use civic justifications. In addition, the preponderance of civic justification vocabulary in crowdfunding pitches of men entrepreneurs as compared to women entrepreneurs in my sample could also be accounted for by the men's higher propensity to engage in collectively-oriented prosocial behaviors - i.e., helpful behaviors directed at social collectives such as groups and organizations - as compared to women's propensity for relationally-oriented prosocial behaviors (Eagly, 2009).

The primary motivation of the second study was to expand the focus of the emerging body of research in the context of crowdfunding beyond just between-gender differences. I proposed that although women tend to be more successful at crowdfunding than men, these differences may either accentuate or narrow depending on the symbolic actions they engage in the process of financial acquisition. More specifically, I predicted and found support for the hypotheses that women will benefit more from using justifications that highlight their change-orientations and agency, and men can increase their chances of success in obtaining crowdfunding by using civic justifications that foreground emancipation as well as their communal (or collective) orientations. Although I did not expect gender differences in the effectiveness of domestic, fame, and industrial justifications that are inherently oriented towards maintaining status quo, I found some interesting patterns that require more exploration. While there was no gender difference in the negative effect of industrial justifications, women were more likely to succeed when using domestic justifications and men were not penalized for using fame justifications. Why gender-stereotype consistent, non-emancipatory justifications are generally beneficial is a question for future research.

The final study was motivated by the desire to examine gender differences in prosocial investors' dominant evaluation criteria. I predicted that women prosocial investors will be more drawn to domestic, civic, fame, and industrial justifications, and less attracted to inspired and market justifications than men. I found a statistically significant difference only in the case of market justifications. However, the effective size was negligible. Overall, while there appears to be no gender difference in the evaluation criteria that men and women prosocial investors use, men prosocial investors were slightly more likely than women prosocial investors to be drawn to market justifications in crowdfunding pitches.

THEORETICAL CONTRIBUTIONS

Building on sociological work on justification (Boltanski & Thévenot, 2006), this dissertation developed a model of how entrepreneurs seeking financial resources can establish worth and gain legitimacy in multiple ways. It empirically analyzed how women and men entrepreneurs draw on specific justifications in their crowdfunding pitches, how grounding pitches in different justification types relate to the successful acquisition of entrepreneurial finance for women and men, and how men and women prosocial investors are differently drawn to specific justification types. The studies illustrate the entrepreneurs' agency in skillfully mobilizing cultural resources and symbolic actions for strategic purposes (Überbacher, 2014).

This dissertation makes three primary contributions. First, it illustrates the importance of symbolic actions for entrepreneurs in the process of financial capital acquisition. I believe this work contributes to the conceptual elaboration of cultural entrepreneurship perspective by focusing attention on the distinct modes of justifications that entrepreneurs may strategically use to appease key stakeholders. Much of the extant theoretical and empirical works in cultural entrepreneurship and symbolic management stream focuses on instrumental manipulation of language, codes, and other symbols, without accounting for rules, conventions, or principles that make entrepreneurs appear reasonable and accountable to key stakeholders, permit a common interpretation of venture, and help entrepreneurs acquire resources. It has mostly overlooked set of practical constraints that limit the possibilities of cultural and symbolic actions available to entrepreneurs. But, justification of an entrepreneurial opportunity through reference to a "grammar" recognized by all becomes particularly crucial in the context of crowdfunding as economic coordination between entrepreneurs and crowdfunders is problematic owing to exacerbated levels of uncertainty and information asymmetry in this setting (Lambert et al., 2018). The diverse profiles of backers and various motives for crowdfunding make it imperative that these justifications follow "rules of acceptability" (Boltanski & Thévenot, 1999: 360). Although prior research provides an empirically grounded understanding of a range of cultural and symbolic strategies that social actors may use to justify their entrepreneurial actions (Zott & Huy, 2007), it is constrained in its research strategy oriented towards either a "formal universalism" or "unlimited pluralism" (Boltanski & Thévenot, 1999: 365). In contrast, sociological works have demonstrated that there is a structured and differentiated set of principles governing the justification efforts of actors, such as entrepreneurs, organizations, and ordinary people (Boltanski & Thévenot, 2006). Taking this empirically grounded typology of justification, the current study examined the relative use, effectiveness, and appeal of various justification types in the specific context of entrepreneurs seeking to raise finance through crowdfunding.

Second, by focusing on gender differences in the effectiveness of various types of justification, this dissertation contributes to the broader field of women entrepreneurship which has attracted significant scholarly attention in the past decade (Jennings & Brush, 2013). Although the gendered perspective on entrepreneurial phenomena is an increasingly vibrant area within mainstream research, its relative inattention within the cultural entrepreneurship research is surprising. By showing gender differences in the use of justifications as well as gender effects in the appraisal of these justifications, I hope this dissertation makes apparent the need for paying greater attention to whether and how gender factors into symbolic processes that aim to attract and persuade key resource providers.

Finally, this dissertation responds to calls for researchers to attend to the broader phenomenon of crowdfunding as a key financing tool for entrepreneurs (McKenny et al., 2017). While crowdfunding research has focused on the attributes of entrepreneurs seeking finance and the characteristics of campaign associated with crowdfunding success (Short et al., 2017), there is a lack of attention on how the nature of justification employed in the crowdfunding pitches influences potential backers. I believe the ideas presented in this dissertation directs the focus of researchers studying crowdfunding towards systematically exploring a variety of cultural and symbolic actions that entrepreneurs may use to increase their chances of crowdfunding success. Moreover, this dissertation adds to the recent works which suggest that gender dynamics in crowdfunding context are different than those in the traditional funding context (Greenberg & Mollick, 2017; Johnson et al., 2018).

LIMITATIONS AND FUTURE DIRECTIONS

A significant limitation of this dissertation stems from the automated text analysis of crowdfunding pitches based on the word-count measure for justifications. Three main shortcomings arise from the word frequency approach used across the studies. First, such an approach is blind to the context. For instance, as Iliev and colleagues (2015) illustrate, an automated text analysis approach looking for the word *happy* fails to distinguish “I have never been happy in my life" from the sentence "I have never been this happy in my life" (p. 7). It is likely that the frequency approach adopted in this dissertation runs a similar risk of misclassifying justifications in some pitches. Second, the word-count approach used in this dissertation fails to account for idiomatic expressions, analogies, and metaphors (Iliev et al., 2015), all of which play a key role in the legitimation process (Cornelissen & Clarke, 2010; Cornelissen, Holt, & Zundel, 2011). Lastly, a rather more crucial limitation of using a word count approach is the often-resulting small effect sizes (Iliev et al., 2015). Negligible effect sizes were found for gender differences in both Study 1 (d in the range of .01 and .02) and Study 3 (d = .001). These effects are far below the *small* effect size (d = .20) benchmark set by Cohen (1977). However, such tiny effect sizes have been reported in prior research using word-count approaches such as LIWC. For example, in a study exploring gender differences in language use, Newman and colleagues (2008) found small effect sizes (i.e., $d > 0.20$) in only 5 out of over 50 linguistic dimensions investigated. In fact, they took a more liberal cut-off of $d = .10$ for their study, arguing that "gender differences in written and spoken language appear to be subtle, but reliable" (p. 230). They substantiate their claim by drawing on Eagly's (1995) article, *The Science and Politics of Comparing Women and Men*, in which she observed that most gender differences reported in psychology research appear in the small to moderate range. She suggested that investigators use baselines specific to particular types of research and not merely rely on general guidelines such as Cohen's (1977) benchmarks for effect size.

To arrive at these baselines, it will be important for future research to investigate gender differences in justifications use in other contexts (e.g., other crowdfunding models and interactions with traditional investors) as well as gender differences on a variety of symbolic and linguistic dimensions in entrepreneurs' spoken as well as written communications, including business plan documents, face-to-face pitches, and social media. It may be necessary for future research to use alternative approaches, such as human coders, to see if the tiny, yet significant gender differences found in this dissertation are present across contexts. Experimental and judgment task studies may be particularly useful to provide more conclusive evidence about the causal effects of gender on entrepreneurs' use of specific justifications and investors' dominant criteria of evaluations. Such future studies in more controlled environments will also help address the validity concerns related to the name-to-gender API utilized in Study 3 to infer investor gender, as well as to rule out the possibility in Study 1 that justifications used in entrepreneurs' pitches may have substantially morphed in the review and editing process of Kiva. Although in Study 1, I narrowed the sample to entrepreneurs in English-speaking entrepreneurs and those who sought funding directly without working through partner organizations, I was unable to ascertain whether and to what extent Kiva or its volunteers may have modified justifications.

I suggest that future research examine an additional justification type, *green justification*, identified in more recent works (Thévenot et al., 2000). On a related note, it would be useful to explore the subdimensions of each justification analytically. There are systematic patterns of relationship between gender roles and specific types of justification that cannot be explained by the unidimensional perspective adopted in this dissertation. For instance, the notion that inspired justification has an emphasis on creativity and risk-taking, and manifests in feelings and emotions suggests the utility of a multi-dimensional approach.

It would be valuable as well for more systematic research on the interaction between entrepreneur gender and investor gender. As prior research suggests, the gender of both entrepreneur and investor need to be considered to understand investors' attitudes (Saparito, Elam, & Brush, 2013). One exciting opportunity for future exploration would be to examine how different message appeals affect homophily tendencies in the crowdfunding context (Ein-Gar & Levontin, 2013).

Another limitation of this dissertation is that the studies provide little insight into cross country similarities and differences. One aspect to examine would be differences in prosociality across countries. Prior research suggests that women across culture share prosocial tendencies (see Mesch & Pactor, 2012 for review). However, some works have provided evidence contrary to the view that women across countries are similar, for example, in their attitude towards charitable appeals that are altruistic in focus (Nelson et al., 2006). Research conducted in the cultural context such as Norway, where gender differences are not particularly strong, fails to find support for gender differences in entrepreneurs' attitudes towards growth (Kolvereid, 1992). In studying cross-country differences, it would be beneficial to draw on prior empirical works on national cultural repertoires (Lamont & Thévenot, 2000), and on multi-causal view of culture that challenges both the "tool-kit" and deterministic accounts of culture (Lamont, 1992).

On a related note, I suggest that future research account for intersectionality effects. Much research has shown that gender intersects with other identities (e.g., nationality, ethnicity, race, and class) to shape individuals' values, attitudes, motivations, and behaviors (Aguilera Lizarazu, Rojas Hosse, Aranda, & Gonzales, 2016; Harkness, 2016; Nath et al., 2013; Scott & Hussain, 2019). It would be worthwhile to explore how intersectionality may explain differences in the use, effectiveness, and appeal of specific justifications in entrepreneurial pitches.

PRACTICAL IMPLICATIONS AND CONCLUSION

The findings across the first two studies in this dissertation have important practical implications for practicing entrepreneurs. For entrepreneurs, there is much at stake in understanding and mastering cultural and symbolic strategies. Because uncertainty and information asymmetry characteristics of entrepreneurship process may dissuade resource providers, entrepreneurs are often subjected to the imperatives of justification. Engaging with a variety of cultural and symbolic actions is crucial for facilitating such economic coordination. Entrepreneurs will benefit from learning to become skilled cultural navigators, with a capacity to use justification types most appropriate to specific situations and contexts in which they find themselves. The results of Study 2 suggest that women can significantly reduce the time for obtaining crowdfunding by using market justifications. However, findings from Study 1 indicate that they are somewhat less likely to draw on market justification as compared to men. Similarly, men seeking crowdfunding could benefit from using civic justifications in their pitches. In contrast, women who draw more extensively on civic justifications, and men who rely highly on inspired and market justifications tend to pay a penalty in obtaining funding. From a gender socialization standpoint, given the findings of Study 1, men may benefit from tempering their tendencies to use market justifications.

The practical implications for prosocial investors will only become more apparent when looked in conjunction with repayment behavior. If future research finds, for example, that entrepreneurs using market justifications tend to have lower default rates, then women investors may benefit from tailoring their evaluation to accommodate market criteria. As such, the findings from Study 3 suggests that women prosocial investors tend to be drawn less to crowdfunding pitches using the market justifications than men prosocial investors.

In conclusion, the quote on the cover of Boltanski and Thévenot’s (2006) book, *On Justification*, reads: “A vital and underappreciated dimension of social interaction is the way individuals justify their actions to others, instinctively drawing on their experience to appeal to principles they hope will command respect." The findings from this dissertation indeed suggest gendered patterns in the use of justifications by entrepreneurs as well as in the evaluation criteria used by investors. The dissertation shows how women and men entrepreneurs can increase their chances of obtaining crowdfunding through the use of specific justifications in their pitches. By exploring gender differences in the process of financial capital acquisition by entrepreneurs, this dissertation, hopefully, advances research and practice related to entrepreneurship and crowdfunding.

Figures and Tables

FIGURE 1. Theoretical Model of Gender Differences in Entrepreneurs' Use of Justifications

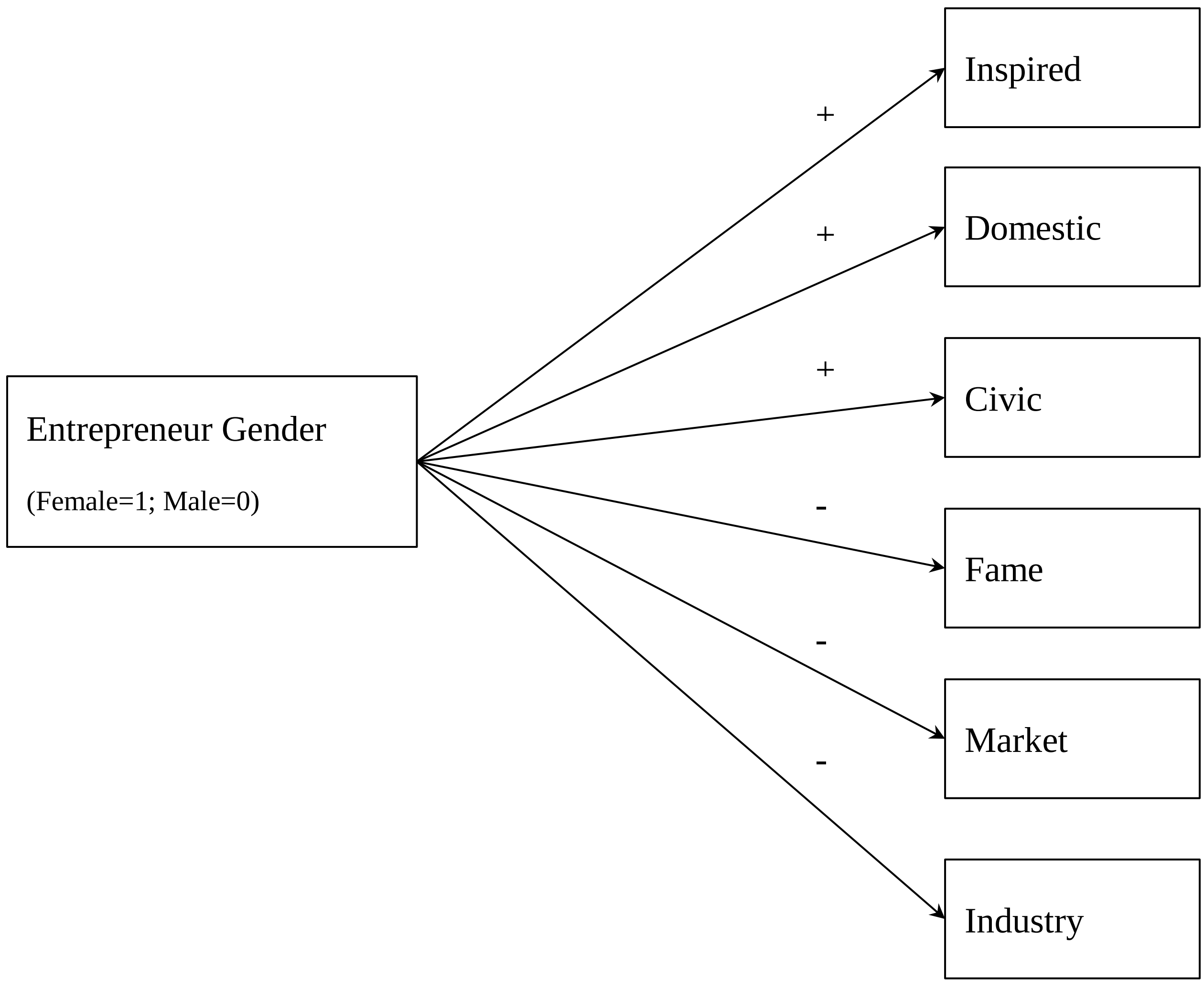


FIGURE 2. Theoretical Model of Effects of Emancipatory and Non-emancipatory Justifications on Funding Outcomes

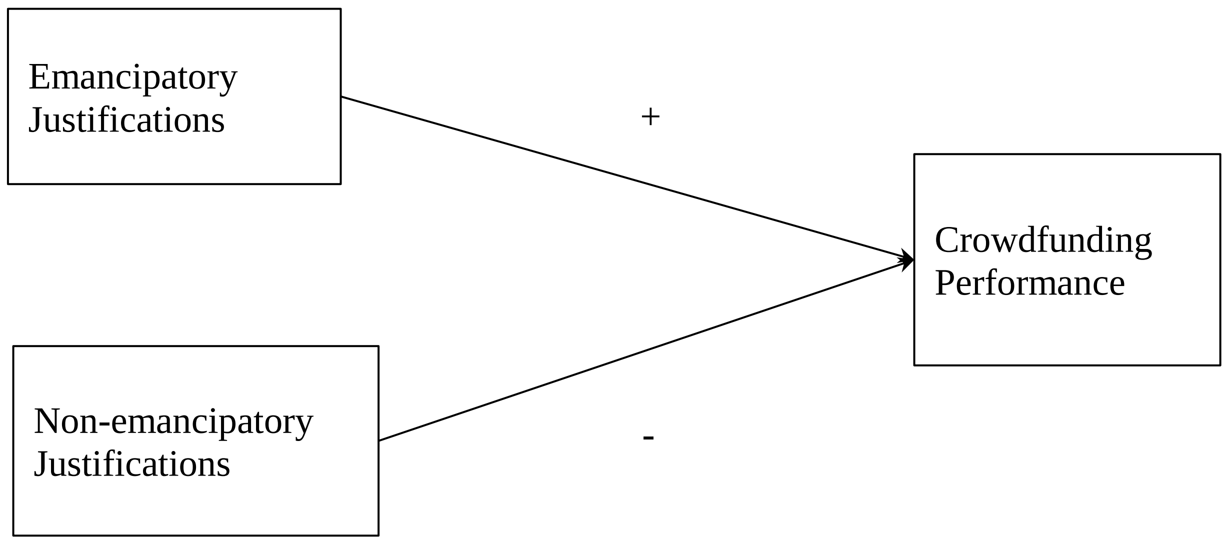


FIGURE 3. Theoretical Model of Gender Differences in the Effectiveness of Emancipatory Justifications

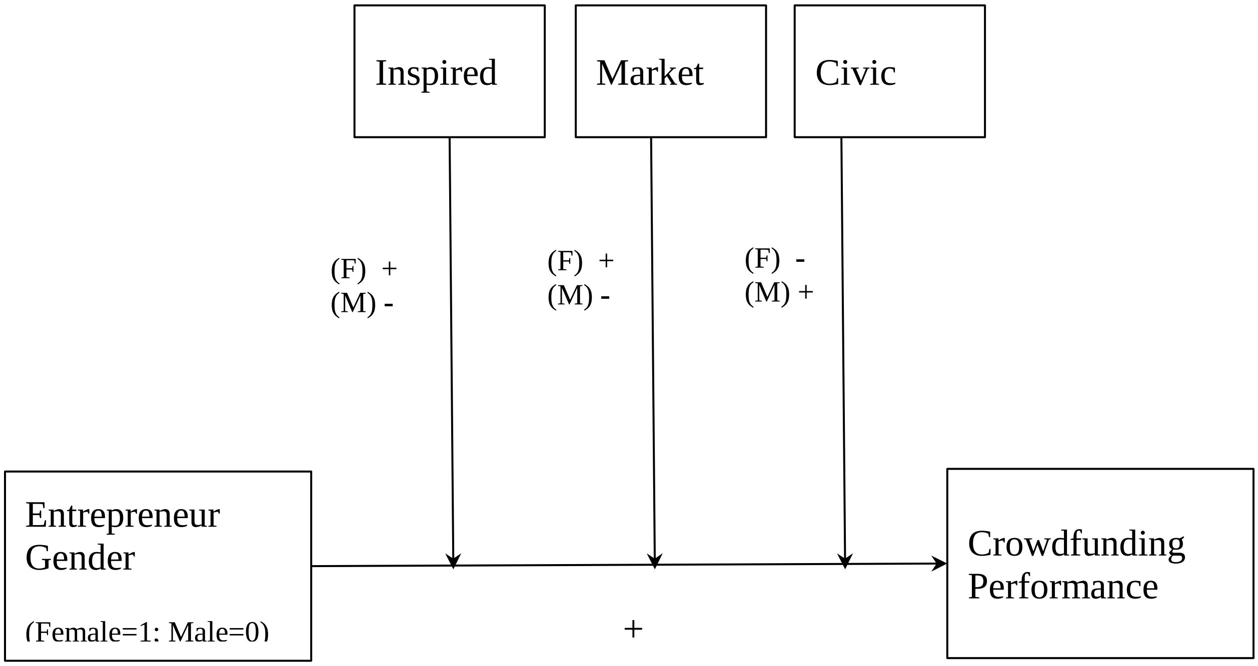


FIGURE 4. Theoretical Model of Gender Differences in Investors' Preference for Justifications

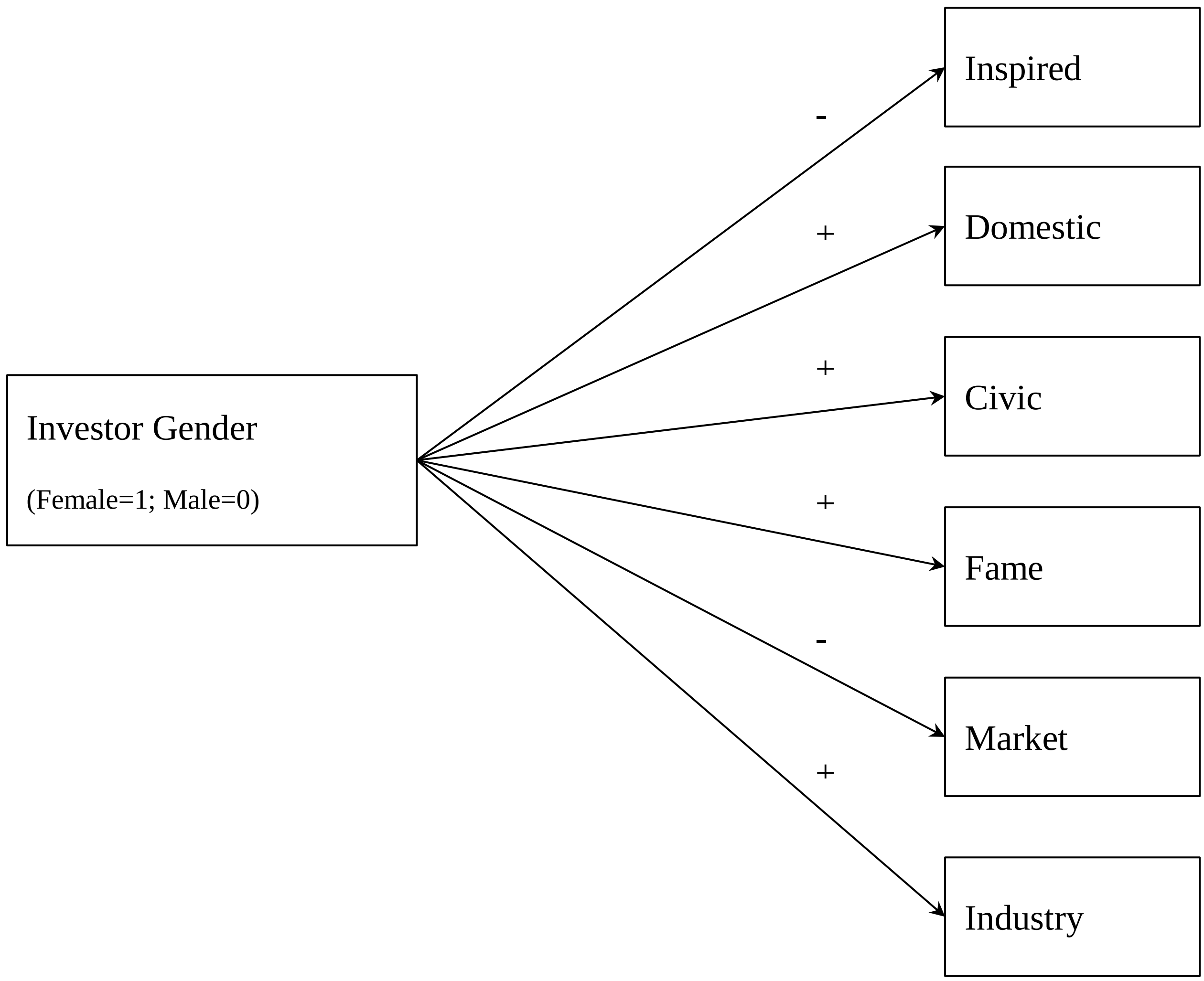
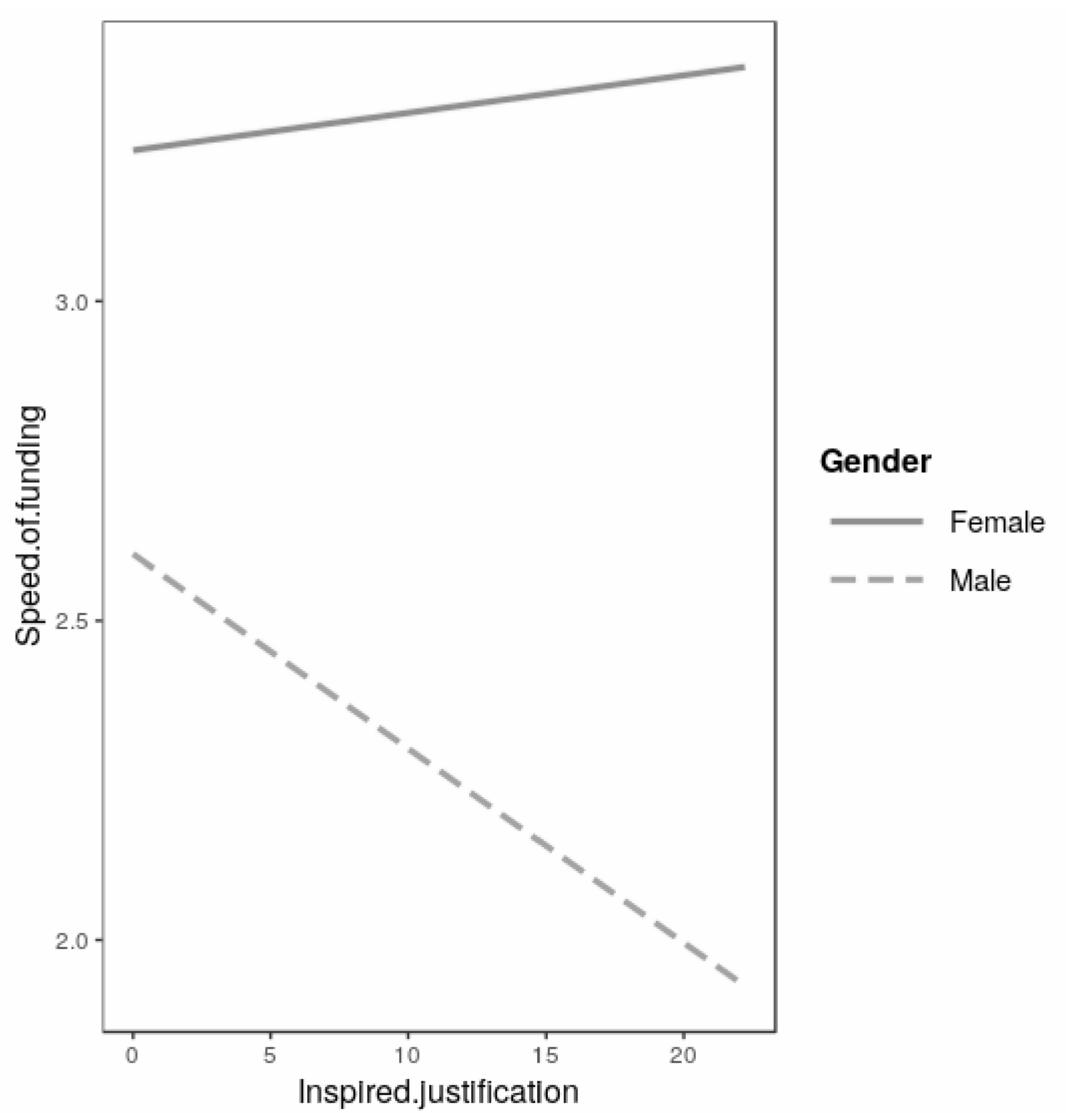


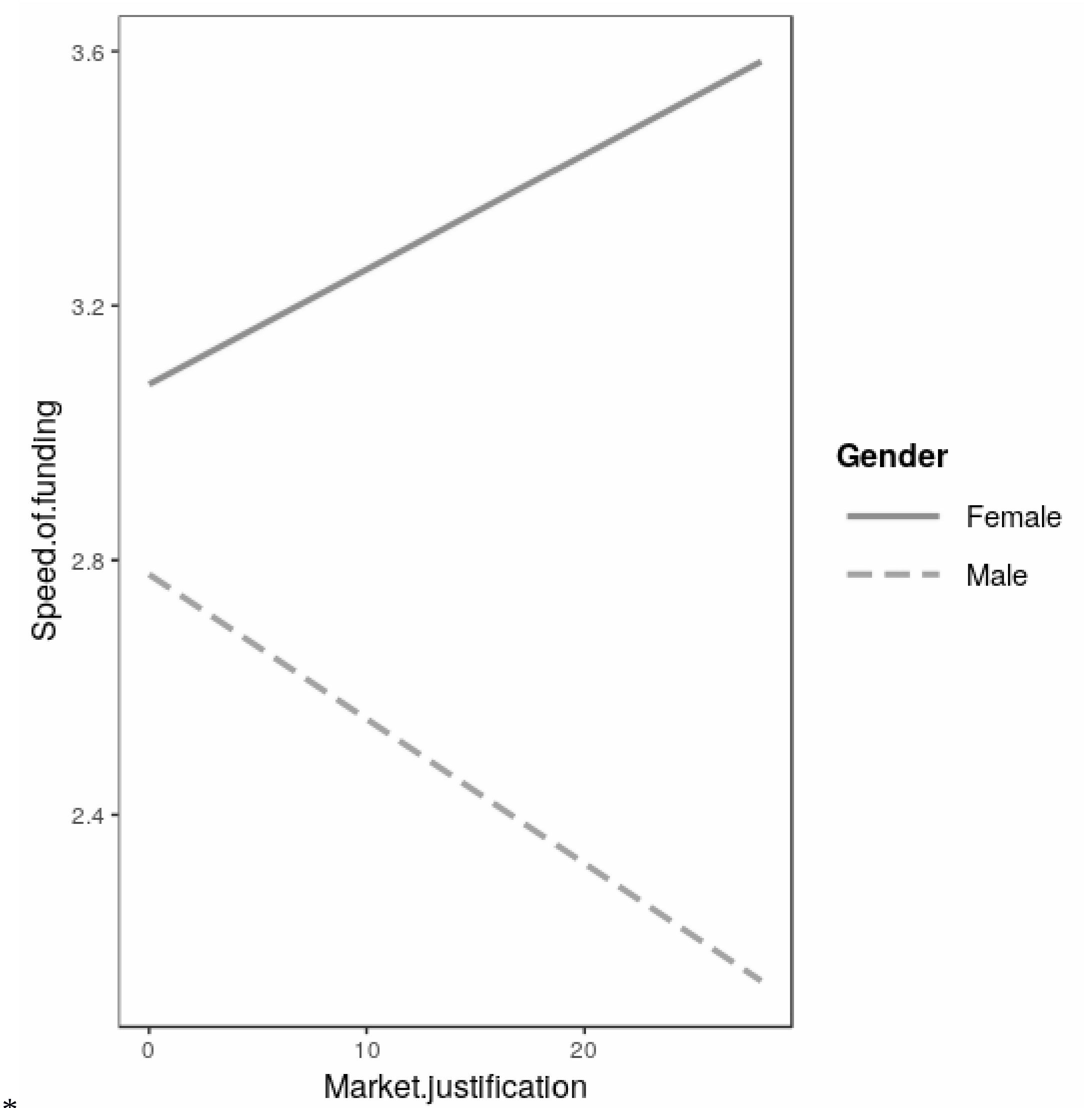
FIGURE 5. Study 2 - Gender Differences in Effectiveness: Interaction Plots

Inspired justification



Simple slopes.
Female Entrepreneur: slope = 0.01 ($p < 0.05$)
Male Entrepreneur: slope = -0.03 ($p < 0.001$)

FIGURE 5. continued
Market justification

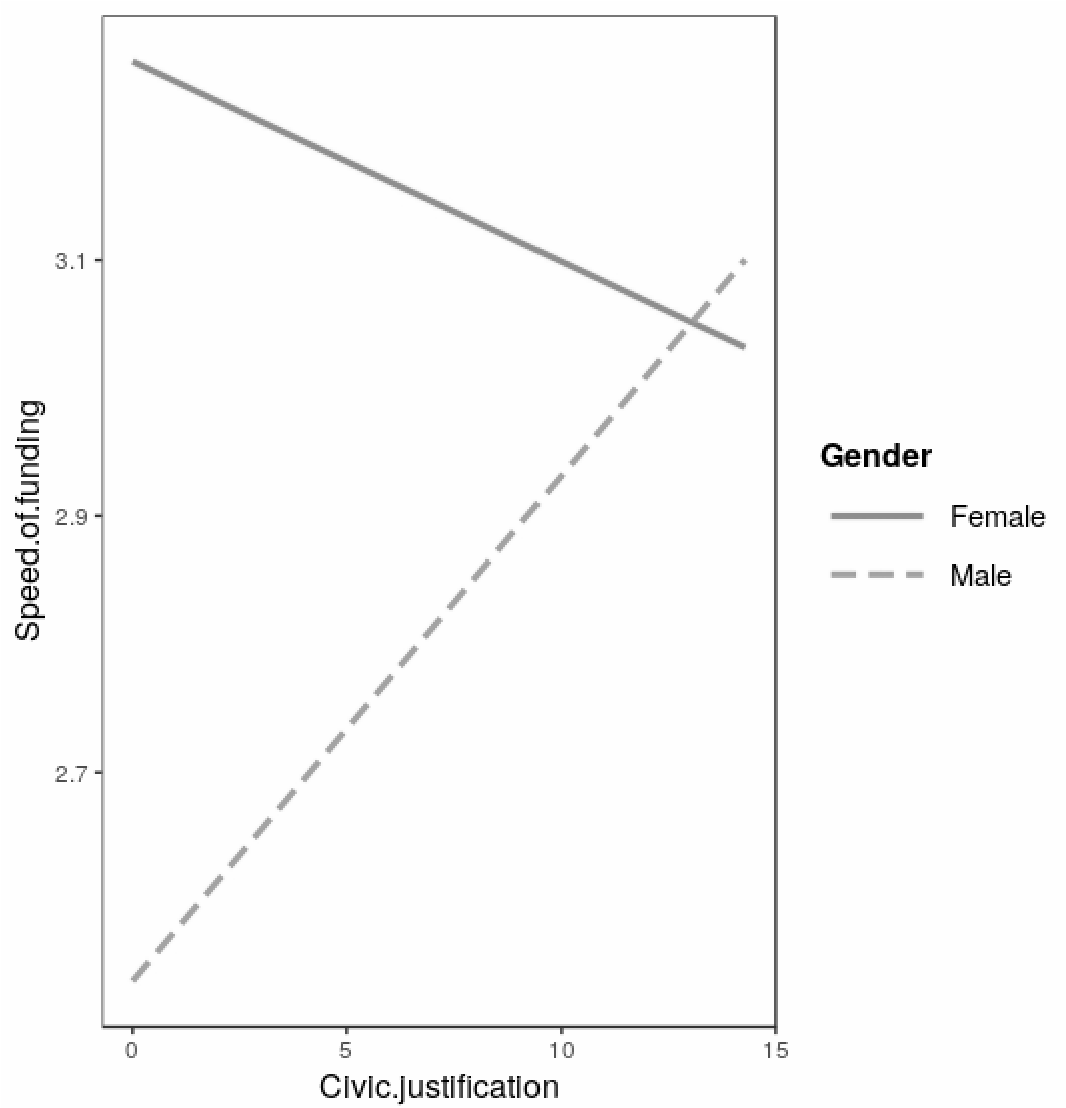


*

Simple slopes.
Female Entrepreneur: slope = 0.02 ($p < 0.001$)
Male Entrepreneur: slope = -0.02 ($p < 0.001$)

FIGURE 5. continued

Civic justification



Simple slopes.
Female Entrepreneur: slope = -0.02 ($p < 0.001$)
Male Entrepreneur: slope = 0.04 ($p < 0.001$)

TABLE 1. Examples of Justifications in Crowdfunding Pitches

Justification	Representative Pitches*
Inspired	"I first realized my *passion* for sculpting in 2001. I later picked up sculpting again in Arizona which has been a great place to explore my *creativity*. I find much *inspiration* in the cactus species that are *unique* to this place. My *experimentation* with mold making began here. Realizing that I could make food safe molds and work with chocolate led my *artistic* direction towards conscious nourishment. The influence of *wonderfully inspiring* friends, involved in the raw food movement, played a role in shifting my focus from non-functional ceramic art to *delightfully* nutritious edible *art*."
Domestic	"Jose Antonio crafts tooled leather furniture, just as his *father* and *grandfather* did. He'd like to expand his workshop. Jose Antonio and his *family* have created carved wood furniture for several *generations*. "For us, embossing leather is a *family tradition*. My *father inherited* it from his *father*, and handed it down to us. Today, my *family* and I are proudly *preserving* the *family tradition*, incorporating contemporary techniques and designs, always ready to face new challenges. Our creations are totally handmade with love and quality. With your *support*, we can try out new techniques and develop new collections. This will let us grow as artisans and as a family. *Thank* you."
Civic	"I am a married Egyptian Albanian and mother of two whose ambition is to feel *equal* to others. I am the leader of the only rural *cooperative* in this town. I and fifteen *community members* created this *cooperative* in 2009 to bring *support* to the inhabitants. Coming from a *vulnerable community*, many *struggle* with their identity and the *stigma* that comes with it. A majority of my *community members* have *suffered* from this. While some of us have found opportunities, the rest of us continue to *struggle* in many ways. A second loan will allow us to create *jobs* for at least 50 rural women."
Fame	"My name Nikki Phillip also known as the *fashion* chameleon as I wear many hats. While in the business of beauty and fashion for just about 8 years I've been *featured* on mainstream *TV* multiple *magazines blogs* and walked for multiple designers during New York fashion week and Harlem's *fashion* row also known as the black *fashion* week. I've also ran and managed two hair companies helping them successfully *launch* their *brand*. I've also worked with *celebrities* grooming them for their personal photoshoot projects and *fashion* shows all while *campaigning* for breast cancer awareness. I now seek to continue to give back offering the same services but through my own salon"
Market	"Shushanik has been involved in retail business for two years. She runs a small store where she *sells* different types of fruits and vegetables, which they *buy* from nearby villages. Besides *selling products* in the store, Shushanik's husband also takes their *goods* to nearby open *markets* and *sells* the *goods* there. By applying for this loan, Shushanik asks for *financial* support to be able to *purchase products* for their store and also to *pay* for renovation of the truck, which is seriously damaged. With a previous loan, she was able to become *financially* stable. With a profitable business, she will be able to cover the monthly *payments* of a new loan."
Industrial	"I am a farmer in Kenya. I do dairy, poultry, and sheep farming, besides horticulture, and I am looking to improve the *efficiency* of my business. I am seeking a loan to buy *machinery* and *equipment* necessary to *effectively* work and prepare the fields. With the borrowed money, I plan to buy *tools* that are modern, improved in design, *durable*, and comfortable to use. The impact of this loan will be *improved* welfare of tool workers, *improved quality* of *work*, and *efficiency* on the farm. This will contribute directly and indirectly to improved *productivity* of the farm. "

**Note*. Examples based on pitches in Kiva. Text has been modified here for illustrative purposes.

TABLE 2. List of Seed Words Used in Developing Dictionary

Justification Type	**Seed Words**
Inspired	artist, artistic, bizarre, create, creative, discover, dream, emotional, entrepreneurial, exciting, explode, genius, imaginary, imagine, ingenious, inspiration, inspirational, inspire, inspiring, inventive, love, marvelous, masterpiece, mind, original, passion, pioneer, pioneering, quest, spontaneous, unique, unspeakable, unusual, visionary.
Domestic	applaud, appreciation, attachment, authority, benevolent, character, compliment, connections, consideration, conventions, customs, distinguished, duty, esteemed, faithful, family, generation, habit , harmony, heritage, hierarchy, history, honest, honor, household, leader, legacy, local, loyal, manners, milieu, nomination, patrimony, personal, praise, principles, proper, punctual, rank, recommendation, relationship, respect, responsibility, responsible, subordinates, subordination, superior, thank, tie, title, tradition, trust, trustworthy.
Civic	all, appeal, authorized, cause, chapter, civic, civil, collective, committee, communal, community, debate, delegation, democracy, democratic, demonstration, dispute, divided, election, electorate, equal, equality, equity, excluded, federation, formality, governed, individualism, infringe., institutions, isolated, join, justice, law, legal, legislation, member, minority, mobilize, movement, office, official, parliament, participation, particular, party, policy, recourse, removed, representation, representative, republic, rights, rule, rules, secretary, solidarity, state, statute, struggle, support, unify, union, unity, voting.
Fame	attention, attract, audience, badge, brand, brochure, bulletin, campaign, capture, celebrity, circulate, convince, distinguish, faded, fashion, forgotten, fuzzy, influence, interview, journalist, known, lost, mailing, medium, message, opinion, penetrate, persuasive, positioning, press, promote, propagate, public, recognized, reputed, spokesperson, standing, target, unknown, visible.
Market	benefit, business, businessman, buy, buyer, client, compete, competition, competitive, competitor, deal, desire, detachment, distance, market, millionaire, money, negotiate, opportunism, pay, payback, possess, price, rival, rivalry, sale, salesman, sell, transact, value.
Industrial	achievement, analyze, assessment, breakdown, calendar, chart, control, criterion, detect, dimension, effective, efficiency, efficient, engineers, experts, factor, formalize, functional, goal, graph, guideline, inactive, inefficient, invest, machinery, managers, measure, method, operational, operators, optimal, optimize, organize, performance, plan, productive, professionals, quantify, reliable, scientists, series, specialists, specialize, stabilize, standardize, standards, supervisors, task, technicians, tool, unproductive, unreliable, unsuited, variable.

TABLE 3. Justification Measure: Exploratory Factor Analysis

Item	1	2	3	4	5	6	7	8
CIVIC1	**.617**	-.078	.080	-.061	-.081	.002	-.008	.119
CIVIC2	**.642**	-.048	-.127	-.006	.053	-.043	.078	-.104
CIVIC3	**.605**	-.003	.030	-.046	-.038	-.029	-.037	.101
CIVIC4	**.516**	.016	.240	.044	-.049	.083	.112	.032
CIVIC5	**.488**	.118	.045	.091	-.058	.108	.056	.037
DOMESTIC1	.082	**.582**	-.050	-.019	.004	-.120	.083	-.109
DOMESTIC2	.007	**.630**	.026	.072	-.055	-.036	-.081	.029
DOMESTIC3	-.095	**.762**	.020	-.028	-.004	-.054	.081	.044
DOMESTIC4	-.034	**.671**	-.025	.013	.163	.071	.023	.022
DOMESTIC5	.132	**.490**	-.059	-.082	.026	.101	-.178	-.047
FAME1	.013	.052	**.648**	.032	.003	-.041	.077	-.204
FAME2	.100	.026	**.315**	.060	.150	-.029	.065	-.030
FAME3	-.055	.046	**.674**	.133	-.050	-.007	-.056	.076
FAME4	-.009	-.053	**.550**	-.033	.135	.001	-.030	-.091
FAME5	.162	-.086	**.672**	-.127	.014	.009	-.097	-.016
INDUSTRY1	.088	-.030	-.046	**.549**	.124	-.005	-.163	.096
INDUSTRY2	-.084	.087	.044	**.668**	-.087	-.031	-.012	-.047
INDUSTRY3	.018	-.159	-.024	**.501**	.160	.014	.210	-.092
INDUSTRY4	.091	-.113	-.007	**.482**	-.061	-.037	-.048	.018
INDUSTRY5	-.073	.048	.004	**.541**	-.062	.054	.009	.152
INSPIRED1	-.114	.063	.136	.018	**.480**	.077	-.001	-.022
INSPIRED2	-.089	.045	.122	-.010	**.550**	.093	.082	.105
INSPIRED3	-.018	.012	-.131	.049	**.619**	-.080	.029	.145
INSPIRED4	.026	.081	.010	.020	**.570**	-.129	-.106	-.022
INSPIRED5	.027	-.082	.013	-.150	**.483**	.011	.035	.069
MARKET1	.017	-.033	.014	-.082	-.037	**.638**	.018	.031
MARKET2	-.024	-.032	.121	.009	-.067	**.718**	-.114	.059
MARKET3	.105	.034	-.106	.108	.030	**.577**	.009	-.072
MARKET4	.050	-.045	-.095	-.012	.033	**.627**	.075	-.081
MARKET5	-.118	.057	-.143	-.033	.001	**.504**	.081	.014
Negativity1	.046	.044	-.029	.052	.080	.050	**.635**	-.175
Negativity2	-.119	.036	.216	-.034	-.078	.070	**.420**	.234
Negativity3	.065	-.013	-.073	-.067	-.010	-.027	**.640**	-.019
Negativity4	.060	-.007	-.012	-.024	-.036	-.126	**.413**	.088
Negativity5	.039	.102	-.121	.006	-.086	-.113	**.364**	.081
Positivity1	-.086	.049	-.012	.057	-.020	.059	-.056	**.507**
Positivity2	.044	.073	.104	-.020	-.092	.022	-.099	**.493**
Positivity3	.040	-.050	-.164	.076	.105	-.051	-.012	**.556**
Positivity4	.158	.036	-.030	-.008	.196	-.004	-.011	**.520**
Positivity5	.025	-.058	-.091	-.076	.115	-.016	.004	**.495**

TABLE 4. Justification Measure: Confirmatory Factor Analysis

	Model	χ^2	**df**	$\Delta\chi^2$	**Δdf**	**CFI**	**TLI**	**RMSEA**
1	One-factor	31130.29	405	-	-	0.291	0.239	0.078
2	Four-factors	18498.19	399	12632***	6	0.583	0.545	0.060
3	Five-factors	8876.14	395	9622.1***	4	0.804	0.785	0.041
4	Six-factors	2609.62	390	6266.5***	5	0.949	0.943	0.021
5	Seven-factors	2578.94	379	30.683**	11	0.949	0.942	0.021

Note. N=12592.

CFI: Comparative Fit Index.

TLI: Tucker-Lewis Index.

RMSEA: Root Mean Square Error of Approximation.

*** $p < 0.001$; ** $p < 0.01$.

TABLE 5. Study 1 - Entrepreneur Gender Differences: Descriptive and Correlations

		M	***SD***	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	Loan Amount	5338.16	2939.35								
2	Pitch Length	228.37	106.51	0.083***							
3	Inspired	3.23	1.98	0.080***	0.013						
4	Domestic	1.68	1.23	-0.011	-0.006	-0.064***					
5	Civic	1.14	1.16	-0.054**	-0.080***	-0.138***	0.054**				
6	Fame	0.63	0.79	-0.006	0.142***	0.095***	-0.102***	-0.050**			
7	Market	2.31	1.71	0.013	-0.054**	-0.101***	-0.080***	-0.007	-0.042*		
8	Industrial	1.49	1.29	0.085***	0.032	0.075***	-0.131***	0.025	0.143***	0.077***	
9	Female Entrepreneur	0.63	0.48	-0.073***	0.051**	0.061***	0.056***	-0.061***	0.012	-0.030	-0.138***

Note. N=3501.
*** p < .001; ** p < .01; * p < .05.
Loan amount in US dollars.
Pitch Length: Number of words in pitch.
Inspired/Domestic/Civic/Fame/Market/Industrial: Percentage of words in the pitch belonging to specific category of justification.
Female Entrepreneur: 1 (female), 0 (male).

TABLE 6. Study 1 - Entrepreneur Gender Differences: Means by Gender

	Female Entrepreneur		**Male Entrepreneur**	
	M	*SD*	*M*	*SD*
Inspired	3.319	1.997	3.069	1.954
Domestic	1.735	1.231	1.593	1.212
Civic	1.090	1.108	1.236	1.242
Fame	0.636	0.816	0.616	0.741
Market	2.274	1.700	2.380	1.737
Industrial	1.350	1.173	1.719	1.443

Note. N=3501.

TABLE 7. Study 1 - Entrepreneur Gender Differences: Regression Model

	Dependent Variables					
	Inspired	Domestic	Civic	Fame	Market	Industrial
Control: Loan Amount	0.053^{***}	-0.012	-0.038^{*}	0.002	0.013	0.069^{***}
	(0.010)	(0.012)	(0.017)	(0.019)	(0.012)	(0.014)
Female Entrepreneur	0.054^{**}	0.083^{***}	-0.113^{***}	0.021	-0.058^{*}	-0.191^{***}
	(0.020)	(0.025)	(0.034)	(0.039)	(0.026)	(0.028)
Constant	-3.353^{***}	-4.137^{***}	-4.448^{***}	-4.987^{***}	-3.721^{***}	-4.069^{***}
	(0.078)	(0.037)	(0.054)	(0.019)	(0.012)	(0.059)
Log likelihood	-9435.3	-7789.9	-7072.5	-5524.3	-8881.8	-7612.2
df Residual	3496	3496	3496	3496	3496	3496
Overdispersion	5.87	4.86	2.02	2.13	3.30	3.33
Random effect parameters						
Intercept (Sector)	0.035	0.004	0.011	0.049	0.004	0.016
	(0.188)	(0.060)	(0.105)	(0.221)	(0.064)	(0.128)
Model fit statistics						
AIC	18880.5	15589.7	14155.1	11058.5	17773.7	15234.5
BIC	18911.3	15620.5	14185.9	11089.3	17804.5	15265.3

Note. N=3501, groups: Sector, 7.

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$; $^{+}p < 0.1$.

TABLE 8. Study 2 - Gender Differences in Effectiveness: Descriptive and Correlations

		M	**SD**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
1	Speed of funding	-0.205	2.303											
2	Funding goal	6.098	0.749	-0.44										
3	Pitch length	4.699	0.436	-0.044	0.146									
4	Repayment terms	2.382	0.41	-0.42	0.457	0.092								
5	Partner rating	2.516	1.569	-0.128	0.008	-0.082	0.128							
6	Female Entrepreneur	0.833	0.373	0.198	-0.226	-0.031	-0.181	0.029						
7	Inspired	1.196	1.11	0.019	-0.013	-0.009	-0.089	0.169	0.068					
8	Domestic	1.429	1.186	-0.055	0.066	0.06	0.068	0.084	-0.025	0.026				
9	Civic	0.778	1.002	0.043	0.003[a]	0.191	-0.103	-0.091	0.065	-0.06	0.059			
10	Fame	0.205	0.457	-0.025	0.04	0.26	0.037	-0.085	-0.049	0.027	-0.05	0.03		
11	Market	9.255	3.294	0.033	-0.135	-0.395	-0.135	0.148	0.08	0.014	-0.115	-0.147	-0.154	
12	Industrial	1.324	1.38	-0.041	0.004[b]	0.258	0.11	-0.049	-0.092	-0.061	-0.085	0.092	0.259	-0.123

Note. N=652432.
All except [a] and [b] are significant at $p < .001$; [a] is significant at $p < .05$; [b] is significant at $p < .01$.
Speed of funding: (log transformed) inverse of days taken to funding.
Funding goal: (log transformed) amount in dollars.
Pitch length: (log transformed) number of words in a pitch;
Repayment terms: (log transformed) in months;
Partner rating: (0 – 4.5);
Female Entrepreneur: 1 (female)/0 (male).
Inspired/Domestic/Civic/Fame/Market/Industrial: Percentage of words in the pitch belonging to specific category of justification.

TABLE 9. Study 2 - Effectiveness of Emancipatory and Non-emancipatory Justifications: Regression Models (DV: Speed of Funding)

	Model 0	**Model 1**	**Model 2**	**Model 3**
Constant	13.064***	12.582***	12.419***	12.746***
	(0.079)	(0.078)	(0.079)	(0.082)
Funding goal	-1.204***	-1.169***	-1.174***	-1.174***
	(0.004)	(0.004)	(0.004)	(0.004)
Pitch length	0.160***	0.155***	0.180***	0.183***
	(0.006)	(0.006)	(0.006)	(0.006)
Repayment terms	-1.743***	-1.718***	-1.712***	-1.714***
	(0.008)	(0.008)	(0.008)	(0.008)
Partner rating	0.204***	0.197***	0.193***	0.191***
	(0.004)	(0.004)	(0.004)	(0.004)
Female Entrepreneur		0.660***	0.656***	0.257***
		(0.007)	(0.007)	(0.025)
Emancipatory			0.009***	-0.022***
			(0.001)	(0.002)
Non-emancipatory			-0.007***	-0.008**
			(0.001)	(0.003)
Female Entrepreneur x Emancipatory				0.037***
				(0.002)
Female Entrepreneur x Non-emancipatory				0.002
				(0.003)
R-squared	0.38	0.389	0.389	0.389
adj. R-squared	0.38	0.389	0.389	0.389
Log-likelihood	-1260342.63	-1255670.31	-1255590.36	-1255391.70
AIC	2520889.27	2511546.62	2511390.72	2510997.41
BIC	2522046.39	2512715.09	2512581.88	2512211.25
N	624280	624280	624280	624280

Note.

a. Following dummy coded controls included, but results not reported: Country (89 levels); Sector (7 levels); Loss liability for nonpayment (2 levels); Loss liability for currency exchange (3 levels); Bonus credit eligibility (2 levels).

b. Emancipatory justification: a composite of inspired, market, and civic justifications; Non-emancipatory justification: a composite of domestic, fame, and industrial justifications.

TABLE 10. Study 2 - Gender Differences in Effectiveness of Emancipatory Justifications: Regression Models (DV: Speed of Funding)

	Model 0	**Model 1**	**Model 2**	**Model 3**
Funding goal	-1.204***	-1.169***	-1.175***	-1.174***
	(0.004)	(0.004)	(0.004)	(0.004)
Repayment terms	-1.743***	-1.718***	-1.710***	-1.712***
	(0.008)	(0.008)	(0.008)	(0.008)
Partner rating	0.204***	0.197***	0.184***	0.181***
	(0.004)	(0.004)	(0.004)	(0.004)
Pitch length	0.160***	0.155***	0.207***	0.210***
	(0.006)	(0.006)	(0.007)	(0.007)
Female Entrepreneur		0.660***	0.656***	0.298***
		(0.007)	(0.007)	(0.021)
Inspired			0.002	-0.030***
			(0.002)	(0.005)
Market			0.011***	-0.023***
			(0.001)	(0.002)
Civic			-0.009***	0.039***
			(0.003)	(0.006)
Domestic			0.008***	0.006**
			(0.002)	(0.002)
Fame			-0.067***	-0.067***
			(0.006)	(0.006)
Industrial			-0.006**	-0.005*
			(0.002)	(0.002)
Female Entrepreneur x Inspired				0.036***
				(0.006)
Female Entrepreneur x Market				0.041***
				(0.002)
Female Entrepreneur x Civic				-0.055***
				(0.007)
Constant	13.064***	12.582***	12.284***	12.573***
	(0.079)	(0.078)	(0.080)	(0.082)
R-squared	0.38	0.389	0.389	0.39
adj R-squared	0.38	0.389	0.389	0.39
Log-likelihood	-1260342.633	-1255670.311	-1255469.725	-1255181.298
AIC	2520889.266	2511546.621	2511157.45	2510586.596
BIC	2522046.39	2512715.09	2512393.985	2511857.163
N	624280	624280	624280	624280

Note. Following dummy coded controls included, but results not reported: Country (89 levels); Sector (7 levels); Loss liability for nonpayment (2 levels); Loss liability for currency exchange (3 levels); Bonus credit eligibility (2 levels).

TABLE 11. Study 3 - Investor Gender Differences: Descriptive Statistics and Correlations

		M	**SD**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
1	Loan amount	1975.6	2945.4											
2	Team size	4.261	6.313	0.312										
3	Female composition	0.784	0.384	-0.051	0.124									
4	Partner rating	2.334	1.598	-0.063	-0.003[c]	0.029								
5	Pitch length	145.8	79.40	0.234	0.117	0.049	-0.021							
6	Inspired	1.098	1.088	0.095	0.002[b]	0.009	0.07	0.082						
7	Domestic	1.468	1.166	0.002[b]	-0.037	-0.024	0.071	0.059	0.016					
8	Civic	1.126	1.221	0.167	0.321	0.155	0.042	0.206	-0.021	0.046				
9	Fame	0.236	0.467	0.048	-0.049	-0.07	-0.05	0.146	0.067	0.01	-0.004			
10	Market	8.457	3.094	-0.147	-0.08	0.038	0.029	-0.325	-0.116	-0.157	-0.132	-0.124		
11	Industrial	1.343	1.261	0.075	-0.063	-0.082	0.027	0.073	0.052	-0.014	-0.026	0.136	-0.101	
12	Female Investor	0.335	0.472	-0.01	-0.035	0.081	-0.033	0.01	0.001[a]	0.003[b]	-0.01	-0.003[b]	-0.02	0.003[c]

Note. N=817714.
All except [a], [b], and [c] are significant at $p < .001$; [a] is non-significant; [b] is significant at $p <.05$; [c] is significant at $p <.01$.
Loan amount in US dollars.
Female composition: Number of female members in entrepreneur team divided by team size.
Partner rating: 0-4.5.
Pitch length: Number of words in pitch.
Inspired/Domestic/Civic/Fame/Market/Industrial: Percentage of words in the pitch belonging to specific category of justification.
Female Investor: 1 (female)/0 (male).

TABLE 12. Study 3 - Investor Gender Differences: Means by Gender

	Female Investor		**Male Investor**	
	M	*SD*	*M*	*SD*
Inspired	1.100	1.109	1.097	1.078
Domestic	1.472	1.176	1.466	1.162
Civic	1.108	1.206	1.135	1.228
Fame	0.234	0.463	0.237	0.470
Market	8.368	3.095	8.502	3.092
Industrial	1.348	1.262	1.340	1.260

Note. N=779846 (as 37868 of 817714 do not have any pitch text).

TABLE 13. Study 3 - Investor Gender Differences: Regression Models

	Dependent Variables					
	Inspired	Domestic	Civic	Fame	Market	Industrial
Controls						
Loan amount	0.018***	0.000	0.052***	-0.015***	-0.017***	0.061***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.000)	(0.001)
Team size	-0.017***	-0.032***	0.207***	0.067***	0.000	-0.021***
	(0.001)	(0.001)	(0.001)	(0.003)	(0.000)	(0.001)
Female composition	0.024***	-0.012***	0.082***	-0.031***	0.003***	-0.038***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.000)	(0.001)
Partner rating	0.071***	0.036***	0.047***	-0.154***	0.029***	-0.012***
	(0.001)	(0.001)	(0.001	(0.003)	(0.000)	(0.001)
Other justifications						
Inspired		0.001	-0.049***	0.036***	-0.026***	0.021***
		(0.001)	(0.001)	(0.002)	(0.000)	(0.001)
Domestic	0.000		0.034***	-0.058***	-0.034***	-0.032***
	(0.001)		(0.001)	(0.002)	(0.000)	(0.001)
Civic	-0.041***	0.0271***		-0.002	-0.025***	0.004***
	(0.001)	(0.001)		(0.002)	(0.000)	(0.000)
Fame	0.042***	-0.073***	-0.015***		-0.049***	0.199***
	(0.002)	(0.002)	(0.002)		(0.000)	(0.002)
Market	-0.023***	-0.032***	-0.036***	-0.046***		-0.026***
	(0.000)	(0.000)	(0.000)	(0.001)		(0.000)
Industrial	0.018***	-0.036***	0.009***	0.162***	-0.021***	
	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)	
Female Investor	-0.005+	-0.003	-0.009**	-0.002	-0.005***	0.003
	(0.003)	(0.002)	(0.003)	(0.004)	(0.001)	(0.003)
Constant	-4.411***	-3.930	-4.513***	-6.081***	-2.416***	-4.089***
	(0.091)	(0.042)	(0.075)	(0.093)	(0.048)	(0.066)
Log likelihood	-1173717	-1322550	-1189308	-556542	-2071556	-1318856
df Residual	779831	779831	779831	779831	779831	779831
Overdispersion	14.1	17.3	6.4	5.72	57.4	6.56
Random effect parameters						
Intercept (Investor)	0.006	0.004	0.010	0.007	0.002	0.006
	(0.075)	(0.061)	(0.098)	(0.086)	(0.045)	(0.076)
Intercept (Sector)	0.040	0.002	0.001	0.009	0.012	0.021
	(0.201)	(0.358)	(0.028)	(0.092)	(0.108)	(0.145)
Intercept (Country)	0.218	0.128	0.463	0.617	0.055	0.108
	(0.467)	(0.358)	(0.681)	(0.785)	(0.234)	(0.329)
Model fit statistics						
AIC	2347463	2645130	2378645	1113114	4143143	2637742
BIC	2347637	2645303	2378819	1113288	4143316	2637915

Note. N. 779846 (as 37868 of 817714 do not have any pitch text),
Groups: Investors, 38020; Sector, 7; Country, 87;
***p < 0.001; **p < 0.01; *p < 0.05; + p < 0.1;

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